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ABSTRACT

Presented are 43 detailed statistical tables containing data on the demographic, educational, and employment characteristics of experienced scientists and engineers. These data were obtained from the 1982 Postcensal Survey of Scientists and Engineers (the third in a decennial series) conducted by the Bureau of the Census. They include data on the total number of scientists and engineers, the number and median annual salary of employed scientists and engineers, and the number of female and Hispanic scientists and engineers by these variables: sex; age; race; highest degree earned; employment status; type of employer; primary work activity; area of critical national interest; federal agency of support; number of years of professional experience; and state of employment. Also included are technical notes (describing the sample design and process and the standard errors for the chosen sample) and a copy of the questionnaire used in the survey. (JN)

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general notes

The data presented in this report are from the 1982 Postcensal Survey of Scientists and Engineers, the third in a decennial series, sponsored by the National Science Foundation (NSF) and conducted by the Bureau of the Census.[1]

The tables herein provide data for scientists and engineers who met certain prescribed educational, occupational, and labor force criteria (related to science or engineering) in the 1980 Decennial Census of Population and who, then, in 1982, met NSF's criteria for designation as a scientist or engineer. The statistics presented here describe the demographic, educational, and employment characteristics of these experienced scientists and engineers. When these data are combined with information on other groups—such as recent baccalaureates in science and engineering just entering the labor force—estimates of the total U. S. science and engineering population are developed.

The Postcensal Survey, conducted in the summer of 1982, was a sample survey. Data from the survey were weighted to totals that would have been obtained had all members of this particular population been surveyed.

This report is organized into three sections. The first part (a) contains the technical notes describing the sample design and process and the standard errors for the chosen sample. The second part (b) contains the detailed statistical tables; and the third part (c) reproduces the questionnaire used to gather the information presented here.

A tape of the detailed data from this survey can be purchased from the Bureau of the Census by writing or calling:

Data Users Services Division
Customer Services
Bureau of the Census
Washington, D. C. 20233
(301) 763-4100

Requests for additional information should be directed to Ms. Nancy M. Conion:

Demographic Studies Group
Scientific and Technical Personnel Studies Section
Division of Science Resources Studies
National Science Foundation
Washington, D. C. 20550
(202) 634-4664

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[1] The questionnaire was titled "1982 National Survey of Natural and Social Scientists and Engineers."

section a

technical notes

In 1982 the Bureau of the Census (Census) conducted the Postcensal Survey of Scientists and Engineers for the National Science Foundation. Subsequent surveys of the sample of individuals drawn for this survey will be conducted in 1984, 1986, and 1988 to update estimates made from the 1982 survey and to provide information on changes in the Nation's science and engineering (S/E) labor force during the decade.

The sample for the estimates presented in this report was selected from an unedited file containing the information collected for each person in the 1980 Decennial Census sample,[2] and consisted of those persons having 1 of 52 possible engineering, scientific, or related 1980 census occupation codes (target occupation), 4 or more years of college (2 or more for an engineering occupation code) and who were either in the 1980 experienced civilian labor force (ECLF) or in the labor reserve. The ECLF is comprised of the employed and the experienced unemployed; the labor reserve consists of persons currently not in the labor force but who have worked within the last five years, with a target occupation for the last job held.

This sample was selected in two stages. The first stage was the 1980 Census sample in which about 20 percent of the Nation received a lengthy questionnaire requesting detailed employment information. For the second stage, each Census sample person was placed in 1 of 10 occupational group strata defined as follows: Operations and computer specialists, engineers, mathematical specialists, life scientists, physical scientists, environmental scientists, psychologists, social scientists, secondary target occupations (college teachers and managers and administrators not classified in one of the other groups) and the labor reserve. In addition to these 10 occupation strata, a further stratification was necessary to accommodate a desire for improved precision for estimates involving the female and minority subpopulations. Thus, each of the first eight occupational strata (those with a high correlation to the S/E fields) was substratified into six race-sex substrata (the race categories were "white," "black," and "other"). The final two occupational strata were not substratified since supplementation for improved precision for women and minorities in these less-highly correlated strata would have produced a sample size beyond the budgetary limit. The sample was selected systematically with differential sampling rates within each of the 50 strata.

method of collection and "in-scope" sample

A questionnaire was mailed to each sample person in June 1982 and one week later a reminder card was also sent to all sample persons. Three weeks after sending the reminder cards, a second questionnaire was mailed to all sample persons who had not responded by that time. Four weeks later, another questionnaire was mailed to those who had still not responded. Finally, five weeks later a telephone followup of all remaining nonrespondents was conducted, followed by a "personal visit followup" to a sample of the remaining nonrespondents to estimate the proportion that were in-scope, i.e., designated as a scientist or engineer.

The final respondents were then screened by NSF's scientist and engineer criteria and results tabulated by S/E field; that is, Census used respondent data to classify persons into various S/E fields as specified by NSF. Also, a person could be screened as *not* being in an S/E field or as being in a field not directly related to the sampling stratum definition.

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[2] See Department of Commerce, Bureau of the Census, *1980 Census of Population, Volume 1,* Chapter C, Part 1 (PC80-1-C1), Appendix D, "Accuracy of the Data" (Washington, D.C.: Supt. of Documents, U.S. Government Printing Office).

response

The sample of 122,173 received 88,363 responses, producing an overall response rate of 72 percent. This rate varied only by a few percentage points across the 10 target occupational strata.

sample survey errors

The particular sample used for this survey is one of a large number of possible samples of the same size that could have been selected using the same sample design. Even if the same collection and processing procedures were used, estimates from each of the different samples would differ from each other. The deviation of a sample estimate from the average of all possible samples is defined as the sampling error. The standard error of a survey estimate is a measure of this variation among the estimates from all possible samples and thus is a measure of the precision with which an estimate from the sample approximates the average result of all possible samples. The sample estimate and its estimated standard error may be used to construct interval estimates that, with prescribed confidence, contain the average result of all possible samples. The method of calculating standard errors and confidence intervals for the data in this report is given below.

In addition to the variability that arises from the sampling procedures, estimates derived from a sample are subject to nonsampling error. This kind of error may be introduced during any or all operations used to collect and process survey data. For example, operations such as editing, reviewing, and processing questionnaires may introduce errors into the data. A more detailed discussion of the sources of nonsampling error is given in the section on "Control of Nonsampling Error" which follows later.

Nonsampling error may affect the data in two ways. Errors that are randomly introduced will increase the variability of the data and, therefore, should be reflected in the standard error. Errors that tend to be consistent in one direction will make sample estimates biased in that direction. For example, if respondents consistently tend to underreport their income, then the resulting counts by income category will be skewed toward the lower income categories. Such biases are not reflected in the standard errors.

calculation of standard errors

Totals and percentages—The numbers in standard error tables A-1 through A-23 are approximate standard errors for estimates of the total numbers and percentages for characteristics of each S/E field. Examples of the use of the tables are given further on.

Differences and sums—The standard errors given in the tables are not directly applicable to differences between or sums of two sample estimates. The standard error of a difference between (or sum of) two sample estimates "x" and "y" is applicable to differences between or sums of two sample estimates. The standard error of a difference between (or sum of) two sample estimates "x" and "y" is approximately the square root of the sum of the squares of the standard errors of the two individual sample estimates, i.e.,

$$SE_{(x+y)} \overset{\circ}{=} SE_{(x-y)} \overset{\circ}{=} \sqrt{(SE_x)^2 + (SE_y)^2}$$

This formula will represent the actual standard error for the difference between (or sum of) characteristics in two different areas or for the difference between (or sum of) characteristics in the same area that are uncorrelated and separate (i.e., one is not a subset of the other). This formula will underestimate the standard error, however, if the two items in a difference have a high negative correlation or if the two items in a sum have a high positive correlation. Similarly, the formula will overestimate the standard error if the two items in a difference have a high positive correlation or if the two items in a sum have a high negative correlation.

Medians—The sampling variability of an estimated median depends upon the size of the base as well as on the distribution from which the median is determined. For each median annual salary table, the corresponding tables of lower and upper confidence bounds have been produced.[3] For a given cell in a table, denote the median annual salary by M, the lower bound by L, and the upper bound by U. Then the 95-percent confidence interval for the median is given by (L,U).

confidence intervals

A sample estimate and its estimated standard error may be used to construct confidence intervals about the estimate. These intervals will contain the average value of the estimated characteristic that results over all possible samples, with a known probability. For example, if all possible samples that could result under the sample design of the survey were independently selected and surveyed under the same conditions, and if the estimate and its estimated standard error were calculated for each of these samples, then:

(1) Approximately 68 percent of the intervals from one estimated standard error below the estimate to one estimated standard error above the estimate would contain the average result from all possible samples; and

(2) Approximately 95 percent of the intervals from two estimated standard errors below the estimate to two estimated standard errors above the estimate would contain the average result from all possible samples.

The intervals are referred to as 68-percent and 95-percent confidence intervals, respectively.

The average value of the estimated characteristic that could be derived from all possible samples may or may not be contained in any particular computed interval. Thus, one cannot make the statement that the average value has a certain probability of falling between the limits of the calculated confidence interval. Rather, one can say with a specified probability or confidence that the calculated confidence interval includes the average estimate from all possible samples.

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[3] Information on availability of these tables can be provided to users by NSF. (See last item of "General Notes" at beginning of this report.)

Confidence intervals may also be constructed for the difference between or sum of two sample figures. This is done by computing the difference between (sum of) these figures, obtaining the standard error of the difference (sum) using the formula given earlier, and then forming a confidence interval for this estimated difference (sum) as described above. One can then say with specified confidence that this interval includes the difference (sum) that would have been obtained by averaging the results from all possible samples.

The estimated standard errors given in this report do not include all portions of the variability resulting from nonsampling error that may be present in the data. The standard errors reflect the effect of simple response variance, but not the effect of correlated errors introduced by field or processing personnel. Thus, the standard errors calculated represent a lower bound of the total error. As a result, confidence intervals formed using these estimated standard errors may not meet the stated levels of lower bound of the total error. As a result, confidence intervals formed using these estimated standard errors may not meet the stated levels of confidence (i.e., 68 percent or 95 percent). Thus, some care must be exercised in the interpretation of the data in this publication based on the estimated standard errors.

use of tables to compute standard errors

Linear interpolation can be used to calculate standard errors for estimated totals that lie between two of the row values shown in the tables. (This also applies to standard errors for estimated percents, provided that the estimated percent is between 1 and 99 and the base of the percent is between 2 of the row values in the table.) By using linear interpolation in the fourth column of standard error table A-2, an approximate standard error for an estimate of 755 Asian and Pacific Islander chemists is

$$170 + \frac{755\text{-}700}{1{,}000\text{-}700}(210\text{-}170)$$

or about 177. Thus, a 95-percent confidence interval for this estimate is 755 - 2(177) to 755 + 2(177), or 401 to 1,109.

Linear interpolation can also be used to calculate standard errors for percentages. For example, an approximate standard error of an estimate of 7 percent of a base of 3,000 engineers may be obtained using linear interpolation on both the percent and base of the percent given in table A-16. It produces an approximate standard error of 3.2 percent.

A note of caution concerning numerical values is necessary. Standard errors of percentages derived in this manner are approximate. Calculations can be expressed to several decimal places, but to do so would indicate more precision in the data than is justifiable. Final results should contain no more than one decimal place when the estimated standard error is one percentage point (i.e., 1.0) or more.

estimation procedure

Adjustment for nonresponse—To account for nonresponse, a nonresponse factor was applied to each responding person. Each sample person was assigned to 1 of 10 different strata based on the 1980 Census occupation groups. Each respondent scientist or engineer was classified as in-scope and respondent persons who were not scientists or engineers were classified as out-of-scope. Initially, the weight for each person was inflated by the reciprocal of the person's probability of selection (call this the person's basic weight). Within each stratum the basic weight of each respondent in-scope person was multiplied by an appropriate nonresponse factor. The numerator of this factor was the sum of the weighted number (using the basic weights) of in-scope responses in that stratum and the estimated weighted number of in-scope nonresponses in that stratum. (A personal visit followup to a sample of nonrespondents was conducted to estimate the proportion who were in-scope.) The denominator was the weighted number of in-scope responses in that stratum. Within each stratum the basic weight of each respondent out-of-scope person was also multiplied by an appropriate nonresponse adjustment factor. The numerator of this factor was the sum of the weighted number of out-of-scope responses in that stratum and the estimated number of out-of-scope nonresponses in that stratum. The denominator was the number of out-of-scope responses in that stratum.

Ratio estimation—Estimates for this survey were obtained from a ratio estimation procedure. In general, this procedure produces estimates that are more reliable than those that would have been obtained if the data for each sample scientist or engineer were inflated by the reciprocal of the person's probability of selection (i.e., if a simple inflation estimate procedure was used) and by the nonresponse factor discussed in the previous paragraph. Ratio estimation improves the reliability of estimates when there is a sufficiently high positive correlation between the estimated characteristic and a statistic which can be estimated from the survey and for which values are available from an independent source (such as the Decennial Census).

After the survey data for a person were inflated by the reciprocal of the person's probability of selection and by a nonresponse factor, the data were tabulated into 60 cells defined by the 10 target strata and 3 race groups ("white," "black," and "other") by sex.

As a final step in the estimation procedure, the values of the survey data in each group were multiplied by an appropriate ratio factor. The numerator of this ratio factor was the weighted Census count of the persons for the group and the denominator was the survey estimate for the number of persons classified into the group.

If necessary, the cells were collapsed to increase the reliability of the ratio estimation procedure. Any cell that did not meet certain collapsing criteria involving the unweighted sample count or the ratio factor was combined, according to a specified pattern, with one or more cells until all collapsing criteria were met.

Derivation of an estimated total—Under the ratio estimation procedure, each sample person was given a weight that was equal to the product of the reciprocal of the probability of selection, nonresponse factor, and ratio factor assigned to the sample person. For a given tabulation class, a characteristic total was estimated by summing the weights given to the sample persons that were in the tabulation class and possessed the characteristic.

control of nonsampling error

As mentioned above, nonsampling error is present in any large statistical undertaking. If left unchecked, such error could introduce serious bias into the data and cause much more variation in the data than that which is attributable solely to sampling.

The sources of nonsampling error include errors introduced during the data collection phase such as failing to collect required information from respondents, obtaining incorrect or inconsistent data, and recording information incorrectly or in the wrong place. Errors can also occur during the clerical handling of questionnaires, the manual editing and coding operations, and the numerous stages of computer processing of the material.

The data are limited by the breadth of the respondent's knowledge and willingness to supply accurate reports. The use of self-enumeration questionnaires enables the scientists and engineers to read the questions as worded and to consult their records to obtain correct answers. In addition, brief explanations provided for some items on the questionnaires assure that the respondents receive uniform instructions.

Care was taken at each step of the data collection phase to reduce the effect of processing and tabulation errors by employing quality control measures throughout the operation. It is unlikely, however, that these controls were able to eliminate the effect of all such errors. Furthermore, it is possible for some persons to be entirely missed by the Census. In such instances, these persons could not have been included in the 1982 Postcensal sample which was selected from the 1980 Census sample. Undercoverage of persons can introduce biases into the published data. (For a detailed discussion on procedures used to reduce undercoverage in the Census, see appendix D of Census Publication PC80-1-C1 referenced in footnote 1 of these technical notes).

limitations

Population represented—Data in this report do not represent the total population of scientists and engineers. Only scientists and engineers who responded to the 1980 Census as having 1 of the 52 S/E target occupations and who responded to the 1982 Postcensal Survey of Scientists and Engineers in a way which would classify them as scientists or engineers are represented.

Nonresponse—The response rate for the survey, 72 percent for the target occupations, reflects the effects of the following: the need to contact a specific person rather than a household at a given address, and the time lag between the 1980 Decennial Census and the 1982 Postcensal Survey, allowing for many individuals to move their residences. Thus, particular attention to possible bias introduced by the nonresponse rate (28 percent) is warranted. In a survey such as this, the adjustment for nonresponse is unbiased if the nonrespondent sample used to estimate the in-scope rate of nonrespondents unbiasedly represents the nonrespondents (there were nonrespondents to the personal visit followup of the sample of nonrespondents and these were not included in the estimated in-scope rate) *and* if the survey respondents are similar to the nonrespondents with respect to the tabulation characteristics. Deviations from these conditions produce a bias of unknown magnitude in the estimates.

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Table A-1. Approximate standard error of estimated number of all scientists and engineers (total) for all races

Estimated number	All scientists and engineers (total)
50	50
100	70
200	110
500	170
700	200
1,000	240
2,500	370
5,000	500
10,000	800
25,000	1,200
50,000	1,800
75,000	2,300
100,000	2,700
150,000	3,500
200,000	4,300
250,000	5,000
300,000	6,000
400,000	7,000
500,000	9,000
750,000	12,000
1,000,000	15,000
2,000,000	29,000

Table A-3. Approximate standard error of estimated number of "other" physical scientists

Estimated number	Total/ white/black	Asian and Pacific Islander/other
50	40	30
100	50	60
200	80	100
500	120	240
700	140	330
1,000	170	—
2,500	280	—
5,000	430	—
10,000	700	—
25,000	1,300	—

Table A-4. Approximate standard error of estimated number of mathematical scientists (total), mathematicians, statisticians, and computer scientists

Estimated number	Total/ white/Asian and Pacific Islander/other	Black
50	50	30
100	80	50
200	110	90
500	170	210
700	200	290
1,000	240	420
2,500	380	1,000
5,000	500	2,000
10,000	800	4,000
25,000	1,300	—
50,000	1,900	—
75,000	2,400	—
100,000	2,900	—
150,000	3,900	—
200,000	4,800	—

Table A-2. Approximate standard error of estimated number of physical scientists (total), chemists, and physicists/astronomers

Estimated number	Total/ white	Black	Asian and Pacific Islander/ other
50	50	30	40
100	80	50	60
200	110	80	80
500	170	200	140
700	200	270	170
1,000	240	390	210
2,500	380	1,000	390
5,000	500	1,900	700
10,000	800	—	1,200
25,000	1,300	—	—
50,000	1,900	—	—
75,000	2,400	—	—
100,000	2,900	—	—
150,000	3,900	—	—

Table A-5. Approximate standard error of engineers (total), civil, mechanical, electrical/electronic, chemical, nuclear and "other" engineers, environmental scientists (total), and earth and atmospheric scientists for all races

Estimated number	Engineers (total), civil, mechanical and "other" engineers	Electrical/ electronic engineers	Chemical engineers	Environmental scientists (total) and earth scientists	Atmospheric scientists	Nuclear engineers
50	50	50	50	50	50	40
100	70	70	70	60	60	50
200	100	90	100	90	90	70
500	150	150	150	140	150	120
700	180	180	180	170	180	140
1,000	220	210	220	200	210	170
2,500	350	340	340	320	360	300
5,000	490	490	490	440	600	490
10,000	700	700	700	600	900	800
25,000	1,200	1,200	1,100	800	—	—
50,000	1,800	2,000	1,500	700	—	—
75,000	2,300	2,700	1,700	—	—	—
100,000	2,800	3,400	—	—	—	—
150,000	3,800	4,700	—	—	—	—
200,000	4,800	6,000	—	—	—	—
250,000	6,000	7,000	—	—	—	—
300,000	7,000	9,000	—	—	—	—
400,000	9,000	—	—	—	—	—
500,000	10,000	—	—	—	—	—
750,000	15,000	—	—	—	—	—
1,000,000	20,000	—	—	—	—	—
2,000,000	38,000	—	—	—	—	—

Table A-6. Approximate standard error of estimated number of aeronautical/astronautical, materials, mining, petroleum, and industrial engineers

Estimated number	Total/ white/black	Asian and Pacific Islander/other
50	50	30
100	70	50
200	90	70
500	150	130
700	180	160
1,000	210	210
2,500	340	470
5,000	480	—
10,000	700	—
25,000	1,200	—
50,000	1,900	—
75,000	2,600	—
100,000	3,200	—

Table A-7. Approximate standard error of estimated number of life scientists (total) and biologists

Estimated number	Total/ white	Black/Asian and Pacific Islander/other
50	50	30
100	80	40
200	110	80
500	170	170
700	200	230
1,000	240	320
2,500	380	800
5,000	500	1,500
10,000	700	3,100
25,000	1,200	—
50,000	1,700	—
75,000	2,000	—
100,000	2,300	—
150,000	2,800	—

Table A-8. Approximate standard error of estimated number of biochemists and agricultural scientists

Estimated number	Total/ white/black	Asian and Pacific Islander/other
50	50	30
100	70	50
200	100	90
500	160	220
700	180	300
1,000	220	420
2,500	350	1,000
5,000	500	—
10,000	800	—
25,000	1,300	—
50,000	2,100	—

Table A-9. Approximate standard error of estimated number of oceanographers

Estimated number	Total/ white/Asian and Pacific Islander/other	Black
50	40	20
100	60	—
200	80	—
500	130	—
700	140	—
1,000	160	—
2,500	180	—

Table A-10. Approximate standard error of estimated number of medical scientists

Estimated number	Total/ white/black	Asian and Pacific Islander/other
50	40	30
100	60	50
200	90	90
500	140	200
700	170	280
1,000	210	400
2,500	360	1,000
5,000	600	—
10,000	1,000	—
25,000	2,200	—

Table A-11. Approximate standard error of estimated number of psychologists and sociologists/ anthropologists

Estimated number	Total/ white	Black/Asian and Pacific Islander/other
50	60	30
100	90	50
200	120	100
500	200	220
700	230	310
1,000	270	440
2,500	430	1,100
5,000	600	2,100
10,000	900	—
25,000	1,400	—
50,000	2,000	—
75,000	2,400	—
100,000	2,800	—

Table A-12. Approximate standard error of estimated number of social scientists (total), economists, and "other" social scientists

Estimated number	Total/ white	Black/Asian and Pacific Islander/other
50	60	30
100	80	50
200	110	80
500	180	190
700	210	260
1,000	250	360
2,500	400	900
5,000	600	1,700
10,000	900	—
25,000	1,500	—
50,000	2,500	—
75,000	3,500	—
100,000	4,400	—
150,000	6,000	—

Table A-13. Approximate standard error of estimated percent of all scientists and engineers (total) for all races

Base of percent (scientists and engineers)	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
100	7.4	10.4	16.2	22.4	26.6	32.3	37.3
200	5.2	7.4	11.5	15.8	18.8	22.8	26.4
500	3.3	4.7	7.3	10.0	11.9	14.4	16.7
700	2.8	3.9	6.1	8.5	10.1	12.2	14.1
1,000	2.3	3.3	5.1	7.1	8.4	10.2	11.8
2,500	1.5	2.1	3.2	4.5	5.3	6.5	7.5
5,000	1.0	1.5	2.3	3.2	3.8	4.6	5.3
10,000	.7	1.0	1.6	2.2	2.7	3.2	3.7
25,000	.5	.7	1.0	1.4	1.7	2.0	2.4
50,000	.3	.5	.7	1.0	1.2	1.4	1.7
75,000	.3	.4	.6	.8	1.0	1.2	1.4
100,000	.2	.3	.5	.7	.8	1.0	1.2
150,000	.2	.3	.4	.6	.7	.8	1.0
200,000	.2	.2	.4	.5	.6	.7	.8
250,000	.1	.2	.3	.4	.5	.6	.7
300,000	.1	.2	.3	.4	.5	.6	.7
400,000	.1	.2	.3	.4	.4	.5	.6
500,000	.1	.1	.2	.3	.4	.5	.5
750,000	.1	.1	.2	.3	.3	.4	.4
1,000,000	.1	.1	.2	.2	.3	.3	.4
2,000,000	.1	.1	.1	.2	.2	.2	.3

Table A-14. Approximate standard error of estimated percent of physical, mathematical, and computer scientists for total, white, Asian and Pacific Islander, and "other" races

Base of percent (scientists and engineers)	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
100	7.2	10.2	15.9	21.8	26.0	31.5	36.4
200	5.1	7.2	11.2	15.4	18.4	22.3	25.7
500	3.2	4.6	7.1	9.8	11.6	14.1	16.3
700	2.7	3.9	6.0	8.3	9.8	11.9	13.8
1,000	2.3	3.2	5.0	6.9	8.2	10.0	11.5
2,500	1.4	2.0	3.2	4.4	5.2	6.3	7.3
5,000	1.0	1.4	2.2	3.1	3.7	4.5	5.1
10,000	.7	1.0	1.6	2.2	2.6	3.2	3.6
25,000	.5	.6	1.0	1.4	1.6	2.0	2.3
50,000	.3	.5	.7	1.0	1.2	1.4	1.6
75,000	.3	.4	.6	.8	.9	1.2	1.3
100,000	.2	.3	.5	.7	.8	1.0	1.2
150,000	.2	.3	.4	.6	.7	.8	.9

Table A-15. Approximate standard error of estimated percent of black physical, mathematical, and computer scientists

Base of percent (scientists and engineers)	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
100	2.7	3.8	5.9	8.1	9.6	11.6	13.4
200	1.9	2.7	4.1	5.7	6.8	8.2	9.5
500	1.2	1.7	2.6	3.6	4.3	5.2	6.0
700	1.0	1.4	2.2	3.0	3.6	4.4	5.1
1,000	.8	1.2	1.9	2.5	3.0	3.7	4.2
2,500	.5	.8	1.2	1.6	1.9	2.3	2.7
5,000	.4	.5	.8	1.1	1.4	1.6	1.9
10,000	.3	.4	.6	.8	1.0	1.2	1.3

Table A-16. Approximate standard error of estimated percent of engineers for total, white, Asian and Pacific Islander, and "other" races

Base of percent (scientists and engineers)	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
100	6.8	9.6	14.9	20.5	24.4	29.6	34.2
200	4.8	6.8	10.5	14.5	17.3	20.9	24.2
500	3.0	4.3	6.7	9.2	10.9	13.2	15.3
700	2.6	3.6	5.6	7.8	9.2	11.2	12.9
1,000	2.2	3.0	4.7	6.5	7.7	9.4	10.8
2,500	1.4	1.9	3.0	4.1	4.9	5.9	6.8
5,000	1.0	1.4	2.1	2.9	3.5	4.2	4.8
10,000	.7	1.0	1.5	[illegible]	2.4	3.0	3.4
25,000	.4	.6	.9	1.3	1.5	1.9	2.2
50,000	.3	.4	.7	.9	1.1	1.3	1.5
75,000	.2	.3	.5	.7	.9	1.1	1.2
100,000	.2	.3	.5	.6	.8	.9	1.1
150,000	.2	.2	.4	.5	.6	.8	.9
200,000	.2	.2	.3	.5	.5	.7	.8
250,000	.1	.2	.3	.4	.5	.6	.7
300,000	.1	.2	.3	.4	.4	.5	.6
400,000	.1	.2	.2	.3	.4	.5	.5
500,000	.1	.1	.2	.3	.3	.4	.5
750,000	.1	.1	.2	.2	.3	.3	.4
1,000,000	.1	.1	.1	.2	.2	.3	.3
2,000,000	.1	.1	.1	.1	.2	.2	.2

Table A-17. Approximate standard error of estimated percentage of black engineers

Base of percent (scientists and engineers)	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
100	3.8	5.3	8.3	11.4	13.6	16.5	19.0
200	2.7	3.8	5.9	8.1	9.6	11.6	13.4
500	1.7	2.4	3.7	5.1	6.1	7.4	8.5
700	1.4	2.0	3.1	4.3	5.1	6.2	7.2
1,000	1.2	1.7	2.6	3.6	4.3	5.2	6.0
2,500	.8	1.1	1.7	2.3	2.7	3.3	3.8
5,000	.5	.8	1.2	1.6	1.9	2.3	2.7
10,000	.4	.5	.8	1.1	1.4	1.6	1.9
25,000	.2	.3	.5	.7	.9	1.0	1.2

Table A-18. Approximate standard error of estimated percent of environmental scientists for total, white, and black races

Base of percent (scientists and engineers)	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
100	6.4	9.0	14.0	19.2	22.9	27.8	32.0
200	4.5	6.3	9.9	13.6	16.2	19.6	22.7
500	2.9	4.0	6.2	8.6	10.2	12.4	14.3
700	2.4	3.4	5.3	7.3	8.6	10.5	12.1
1,000	2.0	2.8	4.4	6.1	7.2	8.8	10.1
2,500	1.3	1.8	2.8	3.8	4.6	5.6	6.4
5,000	.9	1.3	2.0	2.7	3.2	3.9	4.5
10,000	.6	.9	1.4	1.9	2.3	2.8	3.2
25,000	.4	.6	.9	1.2	1.4	1.8	2.0
50,000	.3	.4	.6	.9	1.0	1.2	1.4

Table A-19. Approximate standard error of estimated percent of environmental scientists for Asian and Pacific Islander and "other" races

Base of percent (scientists and engineers)	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
100	3.4	4.8	7.4	10.2	12.2	14.8	17.0
200	2.4	3.4	5.3	7.2	8.6	10.4	12.0
500	1.5	2.1	3.3	4.6	5.4	6.6	7.6
700	1.3	1.8	2.8	3.9	4.6	5.6	6.4
1,000	1.1	1.5	2.3	3.2	3.8	4.7	5.4
2,500	.7	1.0	1.5	2.0	2.4	3.0	3.4

Table A-20. Approximate standard error of estimated percent of life scientists for total and white race

Base of percent (scientists and engineers)	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
100	7.3	10.2	15.9	21.9	26.0	31.6	36.5
200	5.1	7.2	11.2	15.5	18.4	22.3	25.8
500	3.2	4.6	7.1	9.8	11.6	14.1	16.3
700	2.7	3.9	6.0	8.3	9.8	11.9	13.8
1,000	2.3	3.2	5.0	6.9	8.2	10.0	11.5
2,500	1.5	2.0	3.2	4.4	5.2	6.3	7.3
5,000	1.0	1.4	2.2	3.1	3.7	4.5	5.2
10,000	.7	1.0	1.6	2.2	2.6	3.2	3.6
25,000	.5	.6	1.0	1.4	1.6	2.0	2.3
50,000	.3	.5	.7	1.0	1.2	1.4	1.6
75,000	.3	.4	.6	.8	1.0	1.2	1.3
100,000	.2	.3	.5	.7	.8	1.0	1.2
150,000	.2	.3	.4	.6	.7	.8	.9

Table A-21. Approximate standard error of estimated percent of life scientists for black, Asian and Pacific Islander, and "other" races

Base of percent (scientists and engineers)	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
100	2.8	3.9	6.0	8.3	9.9	12.0	13.9
200	2.0	2.7	4.3	5.9	7.0	8.5	9.8
500	1.2	1.7	2.7	3.7	4.4	5.4	6.2
700	1.0	1.5	2.3	3.1	3.7	4.5	5.2
1,000	.9	1.2	1.9	2.6	3.1	3.8	4.4
2,500	.6	.8	1.2	1.7	2.0	2.4	2.8

Table A-22. Approximate standard error of estimated percent of psychologists and social scientists for total and white race

Base of percent (scientists and engineers)	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
100	8.2	11.5	17.9	24.6	29.3	35.6	41.1
200	5.8	8.1	12.7	17.4	20.7	25.2	29.0
500	3.7	5.1	8.0	11.0	13.1	15.9	18.4
700	3.1	4.3	6.8	9.3	11.1	13.4	15.5
1,000	2.6	3.6	5.7	7.8	9.3	11.3	13.0
2,500	1.6	2.3	3.6	4.9	5.9	7.1	8.2
5,000	1.2	1.6	2.5	3.5	4.1	5.0	5.8
10,000	.8	1.2	1.8	2.5	2.9	3.6	4.1
25,000	.5	.7	1.1	1.6	1.9	2.3	2.6
50,000	.4	.5	.8	1.1	1.3	1.6	1.8
75,000	.3	.4	.7	.9	1.1	1.3	1.5
100,000	.3	.4	.6	.8	.9	1.1	1.3
150,000	.2	.3	.5	.6	.8	.9	1.1

Table A-23. Approximate standard error of estimated percent of psychologists and social scientists for black, Asian and Pacific Islander, and "other" races

Base of percent (scientists and engineers)	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
100	3.5	5.0	7.7	10.7	12.7	15.4	17.8
200	2.5	3.5	5.5	7.5	9.0	10.9	12.6
500	1.6	2.2	3.5	4.8	5.7	6.9	7.9
700	1.3	1.9	2.9	4.0	4.8	5.8	6.7
1,000	1.1	1.6	2.4	3.4	4.0	4.9	5.6
2,500	.7	1.0	1.5	2.1	2.5	3.1	3.6
5,000	.5	.7	1.1	1.5	1.8	2.2	2.5
10,000	.4	.5	.8	1.1	1.3	1.5	1.8

Sources: National Science Foundation, for tables A-1 through A-23.

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detailed statistical tables

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Table B-1. Number of Scientists and Engineers by Field, Sex, Race, and Highest Degree: 1982

Field, Sex, and Race	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Total, all fields								
Sex	1,911,917	275,615	10,997	473,549	958,625	37,439	486	155,207
Male	1,729,032	237,701	10,241	408,649	872,929	36,805	458	152,250
Female	182,885	37,914	756	64,900	85,696	634	28	2,957
Race	1,911,917	275,615	10,997	473,549	958,625	37,439	486	155,207
White	1,748,264	247,142	10,386	419,382	889,655	35,152	476	146,071
Black	40,877	4,361	253	12,434	20,046	750	10	2,983
Asian	93,187	19,952	228	35,032	33,914	635	-	3,426
Other¹	29,589	4,160	90	6,701	15,010	902	-	2,727
Physical scientists								
Sex	128,535	52,134	219	28,106	48,075	-	-	-
Male	115,036	49,100	210	23,689	42,037	-	-	-
Female	13,499	3,034	9	4,417	6,038	-	-	-
Race	128,535	52,134	219	28,106	48,075	-	-	-
White	115,314	47,219	201	24,348	43,547	-	-	-
Black	2,981	668	18	862	1,432	-	-	-
Asian	8,009	3,131	-	2,418	2,460	-	-	-
Other¹	2,232	1,116	-	478	637	-	-	-
Chemists								
Sex	87,544	29,826	176	18,060	39,482	-	-	-
Male	76,544	27,793	167	14,473	34,112	-	-	-
Female	11,000	2,034	9	3,587	5,371	-	-	-
Race	87,544	29,826	176	18,060	39,482	-	-	-
White	77,258	26,776	167	14,913	35,4[illegible]	-	-	-
Black	2,493	575	9	611	1,2[illegible]	-	-	-
Asian	6,545	1,935	-	2,235	2,3[illegible]	-	-	-
Other¹	1,249	541	-	301	45[illegible]	-	-	-
Physicists / astronomers								
Sex	28,106	16,522	34	6,319	5,232	-	-	-
Male	26,259	15,643	34	5,695	4,889	-	-	-
Female	1,847	879	-	624	343	-	-	-
Race	28,106	16,522	34	6,319	5,232	-	-	-
White	26,036	15,095	34	5,959	4,[illegible]	-	-	-
Black	349	85	-	196	[illegible]	-	-	-
Asian	1,081	991	-	47	43	-	-	-
Other¹	640	351	-	117	172	-	-	-
Other physical scientists								
Sex	12,884	5,786	9	3,728	3,361	-	-	-
Male	12,232	5,664	9	3,522	3,037	-	-	-
Female	652	122	-	206	324	-	-	-
Race	12,884	5,786	9	3,728	3,361	-	-	-
White	12,020	5,[illegible]48	-	3,47[illegible]	3,197	-	-	-
Black	1[illegible]	9	9	56	6[illegible]	-	-	-
Asian	3[illegible]3	[illegible]34	-	136	[illegible]2	-	-	-
Other¹	34[illegible]	[illegible]25	-	60	58	-	-	-
Mathematical scientists								
Sex	48,425	17,551	93	16,949	13,832	-	-	-
Male	38,800	15,679	81	12,161	10,879	-	-	-
Female	9,625	1,872	12	4,788	2,953	-	-	-
Race	48,425	17,551	93	16,949	13,832	-	-	-
White	43,663	15,806	72	14,908	12,877	-	-	-
Black	1,475	501	-	510	464	-	-	-
Asian	2,517	1,016	21	1,214	266	-	-	-
Other¹	770	228	-	317	225	-	-	-
Mathematicians								
Sex	40,777	15,052	72	13,359	12,294	-	-	-
Male	33,363	13,556	72	9,805	9,931	-	-	-
Female	7,414	1,497	-	3,554	2,363	-	-	-
Race	40,777	15,052	72	13,359	12,294	-	-	-
White	37,003	13,447	72	11,892	11,593	-	-	-
Black	1,273	475	-	392	406	-	-	-
Asian	1,920	922	-	776	222	-	-	-
Other¹	580	209	-	299	73	-	-	-
Statisticians								
Sex	7,649	2,499	21	3,590	1,538	-	-	-
Male	5,437	2,124	9	2,356	948	-	-	-
Female	2,211	375	12	1,2[illegible]	590	-	-	-
Race	7,649	2,499	21	3,590	1,538	-	-	-
White	6,660	2,360	-	[illegible],017	1,283	-	-	-
Black	2[illegible]	26	-	117	58	-	-	-
Asian	5[illegible]7	94	21	[illegible]	44	-	-	-
Other¹	1[illegible]9	19	-	19	152	-	-	-
Computer specialists								
Sex	174,033	7,435	355	49,306	116,937	-	-	-
Male	134,670	6,674	355	40,670	86,971	-	-	-
Female	39,363	761	-	8,636	29,966	-	-	-
Race	174,033	7,435	355	49,306	116,937	-	-	-
White	157,203	6,205	334	43,664	106,9[illegible]	-	-	-
Black	5,687	34	11	1,219	4,423	-	-	-
Asian	8,122	1,006	9	3,837	3,269	-	-	-
Other¹	3,022	190	-	586	2,246	-	-	-

See Footnotes at end of Table

Table B-1. Number of Scientists and Engineers by Field, Sex, Race, and Highest Degree: 1982—continued

Field, Sex, and Race	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Environmental scientists								
Sex	46,056	8,920	200	16,275	20,661	-	-	-
Male	42,712	8,399	200	14,945	19,169	-	-	-
Female	3,344	522	-	1,330	1,492	-	-	-
Race	46,056	8,920	200	16,275	20,661	-	-	-
White	44,158	8,295	200	15,690	19,984	-	-	-
Black	325	33	-	91	202	-	-	-
Asian	1,061	555	-	413	93	-	-	-
Other[1]	511	47	-	81	382	-	-	-
Earth scientists								
Sex	38,882	6,732	200	13,873	18,077	-	-	-
Male	36,052	6,364	200	12,704	16,785	-	-	-
Female	2,830	368	-	1,169	1,293	-	-	-
Race	38,882	6,732	200	13,873	18,077	-	-	-
White	37,580	6,364	200	13,506	17,510	-	-	-
Black	248	23	-	79	146	-	-	-
Asian	635	308	-	243	84	-	-	-
Other[1]	419	37	-	45	337	-	-	-
Oceanographers								
Sex	1,704	467	-	756	481	-	-	-
Male	1,521	443	-	724	353	-	-	-
Female	183	24	-	32	127	-	-	-
Race	1,704	467	-	756	481	-	-	-
White	1,580	449	-	708	433	-	-	-
Black	33	9	-	12	12	-	-	-
Asian	9	9	-	-	-	-	-	-
Other[1]	73	-	-	36	36	-	-	-
Atmospheric scientists								
Sex	5,470	1,722	-	1,646	2,103	-	-	-
Male	5,139	1,592	-	1,516	2,031	-	-	-
Female	331	130	-	129	72	-	-	-
Race	5,470	1,722	-	1,646	2,103	-	-	-
White	4,989	1,473	-	1,475	2,041	-	-	-
Black	45	-	-	-	45	-	-	-
Asian	417	238	-	170	8	-	-	-
Other[1]	20	11	-	-	9	-	-	-
Engineers								
Sex	1,148,552	47,634	2,995	247,830	654,982	37,439	486	155,207
Male	1,119,398	46,704	2,947	241,922	638,312	36,805	458	152,250
Female	27,154	930	48	5,908	16,649	634	28	2,957
Race	1,148,552	47,634	2,995	247,830	654,982	37,439	486	155,207
White	1,046,453	37,441	2,694	215,643	608,976	35,152	476	146,071
Black	18,936	174	72	4,049	10,900	750	10	2,983
Asian	62,743	9,019	169	24,410	25,084	635	-	3,428
Other[1]	18,418	1,000	60	3,720	10,001	902	-	2,727
Aeronautical / Astronautical								
Sex	50,229	2,984	354	13,939	24,274	1,591	-	7,087
Male	49,321	2,904	346	[illegible]	23,815	1,574	-	7,002
Female	907	80	8	250	458	17	-	85
Race	50,229	2,984	354	13,939	24,274	1,591	-	7,087
White	47,180	2,410	354	12,982	23,302	1,476	-	6,656
Black	660	11	-	220	306	24	-	98
Asian	1,863	518	-	623	448	73	-	202
Other[1]	526	44	-	114	218	18	-	132
Chemical								
Sex	68,911	6,647	154	17,010	41,736	381	34	2,949
Male	65,707	6,551	136	16,379	39,335	373	34	2,899
Female	3,204	96	19	631	2,401	8	-	50
Race	68,911	6,647	154	17,010	41,736	381	34	2,949
White	61,768	4,978	144	14,982	38,430	381	34	2,837
Black	679	-	10	182	477	-	-	10
Asian	5,350	1,505	-	1,552	2,192	-	-	101
Other[1]	1,115	163	-	314	636	-	-	-
Civil								
Sex	159,708	4,667	378	32,752	100,616	3,952	278	17,065
Male	157,036	4,667	375	32,189	98,779	3,866	278	16,882
Female	2,673	-	3	563	1,837	86	-	183
Race	159,708	4,667	378	32,752	100,616	3,952	278	17,065
White	141,230	3,256	307	26,478	91,592	3,766	270	15,554
Black	2,210	51	-	341	1,518	61	-	239
Asian	12,998	1,323	36	5,109	5,794	55	-	681
Other[1]	3,270	36	34	825	1,712	71	-	592
Electrical / Electronic								
Sex	262,300	10,149	692	60,314	150,001	10,330	68	30,746
Male	258,336	9,946	684	59,595	147,513	10,213	68	30,318
Female	3,963	203	8	719	2,488	116	-	429
Race	262,300	10,149	692	60,314	150,001	10,330	68	30,746
White	235,767	7,886	562	51,998	137,420	9,553	68	28,272
Black	6,044	10	18	1,097	3,383	273	-	963
Asian	16,620	2,066	86	6,402	7,040	161	-	875
Other[1]	3,869	187	27	817	1,858	343	-	637

See Footnotes at end of Table

Table B-1. Number of Scientists and Engineers by Field, Sex, Race, and Highest Degree: 1982—continued

Field, Sex, and Race	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Industrial								
Sex	74,698	1,218	86	13,423	43,772	2,487	8	13,703
Male	72,382	1,202	86	13,072	42,282	2,424	-	13,315
Female	2,316	17	-	351	1,490	63	8	387
Race	74,698	1,218	86	13,423	43,772	2,487	8	13,703
White	70,589	1,142	68	11,617	42,178	2,410	8	13,167
Black	1,137	-	-	221	624	41	-	252
Asian	2,321	58	18	1,516	547	36	-	146
Other[1]	650	18	-	70	424	-	-	138
Materials								
Sex	25,535	3,557	195	6,362	12,605	453	-	2,363
Male	24,765	3,512	195	6,106	12,194	453	-	2,305
Female	770	45	-	256	411	-	-	58
Race	25,535	3,557	195	6,362	12,605	453	-	2,363
White	23,202	2,965	177	5,393	12,026	373	-	2,270
Black	184	10	-	20	123	10	-	20
Asian	1,863	564	18	829	362	36	-	55
Other[1]	286	18	-	120	95	34	-	18
Mechanical								
Sex	228,891	6,586	339	47,416	140,900	6,778	-	26,872
Male	225,044	6,403	339	46,571	138,591	6,673	-	26,468
Female	3,847	184	-	845	2,309	105	-	404
Race	228,891	6,586	339	47,416	140,900	6,778	-	26,872
White	211,077	4,685	335	42,146	131,716	6,495	-	25,700
Black	2,405	20	3	485	1,544	72	-	279
Asian	11,703	1,629	-	4,245	5,166	109	-	554
Other[1]	3,706	252	-	540	2,474	102	-	339
Mining								
Sex	8,303	419	18	873	6,341	71	-	581
Male	8,083	419	18	871	6,127	68	-	581
Female	219	-	-	3	214	3	-	-
Race	8,303	419	18	873	6,341	71	-	581
White	8,002	382	18	790	6,196	71	-	544
Black	28	-	-	28	-	-	-	-
Asian	109	36	-	55	18	-	-	-
Other[1]	163	-	-	-	127	-	-	36
Nuclear								
Sex	10,016	872	-	3,654	4,359	180	-	951
Male	9,844	864	-	3,583	4,273	180	-	943
Female	173	8	-	71	86	-	-	8
Race	10,016	872	-	3,654	4,359	180	-	951
White	9,064	753	-	3,390	3,856	170	-	897
Black	82	10	-	-	61	10	-	-
Asian	730	109	-	228	338	-	-	55
Other[1]	141	-	-	36	104	-	-	-
Petroleum								
Sex	15,038	706	-	2,260	10,222	102	-	1,749
Male	14,647	706	-	2,221	9,870	102	-	1,749
Female	391	-	-	39	352	-	-	-
Race	15,038	706	-	2,260	10,222	102	-	1,749
White	14,063	543	-	2,004	9,825	102	-	1,589
Black	149	-	-	10	74	-	-	65
Asian	302	55	-	202	27	-	-	18
Other[1]	524	109	-	44	295	-	-	77
Other								
Sex	242,923	9,829	780	49,825	120,134	11,115	96	51,142
Male	234,232	9,531	770	47,654	115,532	10,879	76	49,789
Female	8,691	298	10	2,171	4,603	236	20	1,353
Race	242,923	9,829	780	49,825	120,134	11,115	96	51,142
White	224,512	8,432	730	43,883	112,436	10,357	86	48,586
Black	5,360	61	40	1,443	2,490	259	10	1,057
Asian	8,883	1,165	10	3,652	3,152	164	-	741
Other[1]	4,168	172	-	847	2,056	334	-	758
Life scientists								
Sex	149,477	54,275	5,080	36,181	53,941	-	-	-
Male	123,203	46,186	4,408	27,011	45,599	-	-	-
Female	26,274	8,090	672	9,170	8,342	-	-	-
Race	149,477	54,275	5,080	36,181	53,941	-	-	-
White	139,410	50,314	5,032	33,347	50,716	-	-	-
Black	2,702	906	10	906	876	-	-	-
Asian	5,516	2,704	18	1,288	1,506	-	-	-
Other[1]	1,849	350	19	636	842	-	-	-
Biologists								
Sex	92,906	32,485	660	23,460	36,301	-	-	-
Male	75,265	27,922	513	16,497	30,334	-	-	-
Female	17,641	4,564	146	6,964	5,967	-	-	-
Race	92,906	32,485	660	23,460	36,301	-	-	-
White	87,267	30,307	660	22,075	34,225	-	-	-
Black	2,210	754	-	768	688	-	-	-
Asian	2,526	1,322	-	335	869	-	-	-
Other[1]	903	102	-	282	519	-	-	-

See Footnotes at end of Table

Table B-1. Number of Scientists and Engineers by Field, Sex, Race, and Highest Degree: 1982—continued

Field, Sex, and Race	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Biochemists								
Sex	10,476	7,832	-	1,912	732	-	-	-
Male	8,171	6,330	-	1,306	536	-	-	-
Female	2,305	1,502	-	606	197	-	-	-
Race	10,476	7,832	-	1,912	732	-	-	-
White	9,292	6,957	-	1,639	696	-	-	-
Black	130	62	-	49	18	-	-	-
Asian	966	757	-	193	18	-	-	-
Other[1]	86	56	-	31	-	-	-	-
Agricultural scientists								
Sex	30,263	8,071	109	7,777	14,307	-	-	-
Male	28,102	7,481	109	7,440	13,073	-	-	-
Female	2,161	590	-	337	1,234	-	-	-
Race	30,263	8,071	109	7,777	14,307	-	-	-
White	28,284	7,570	109	7,120	13,485	-	-	-
Black	236	49	-	73	117	-	-	-
Asian	1,176	362	-	414	400	-	-	-
Other[1]	565	90	-	171	304	-	-	-
Medical scientists								
Sex	15,831	5,887	4,311	3,032	2,601	-	-	-
Male	11,664	4,454	3,786	1,768	1,656	-	-	-
Female	4,167	1,434	525	1,264	944	-	-	-
Race	15,831	5,887	4,311	3,032	2,601	-	-	-
White	14,566	5,479	4,264	2,513	2,310	-	-	-
Black	125	43	10	19	53	-	-	-
Asian	846	263	18	346	219	-	-	-
Other[1]	295	102	[illegible]	155	19	-	-	-
Psychologists								
Sex	90,225	[illegible]	[illegible]	35,103	10,591	-	-	-
Male	56,938	30,095	232	18,720	7,891	-	-	-
Female	33,287	14,203	-	16,383	2,701	-	-	-
Race	90,225	44,298	232	35,103	10,591	-	-	-
White	85,478	42,666	64	32,730	10,019	-	-	-
Black	2,914	778	168	1,692	276	-	-	-
Asian	948	386	-	383	[illegible]	-	-	-
Other[1]	865	468	-	[illegible]	118	-	-	-
Social scientists								
Sex	128,615	43,366	1,824	[illegible]	39,625	-	-	-
Male	98,275	34,864	1,809	29,532	32,071	-	-	-
Female	30,339	8,502	15	14,267	7,565	-	-	-
Race	128,615	43,366	1,824	43,799	39,625	-	-	-
White	116,586	39,206	1,790	39,052	36,536	-	-	-
Black	5,854	1,264	13	3,104	1,473	-	-	-
Asian	4,272	2,135	11	1,070	1,056	-	-	-
Other[1]	[illegible]	761	11	573	559	-	-	-
Economists								
Sex	51,831	16,882	531	15,659	18,759	-	-	-
Male	46,126	15,184	531	13,378	17,033	-	-	-
Female	5,705	1,698	-	2,281	1,726	-	-	-
Race	51,831	16,882	531	15,659	18,759	-	-	-
White	48,225	15,375	510	[illegible]	17,966	-	-	-
Black	750	129	-	437	183	-	-	-
Asian	2,373	1,241	11	782	339	-	-	-
Other[1]	484	138	11	65	270	-	-	-
Sociologists / anthropologists								
Sex	25,139	11,425	200	6,148	7,367	-	-	-
Male	15,787	7,472	184	3,297	4,834	-	-	-
Female	9,353	3,954	[illegible]	2,851	2,533	-	-	-
Race	25,139	11,425	[illegible]	6,148	7,367	-	-	-
White	22,421	10,443	[illegible]	5,402	6,377	-	-	-
Black	1,651	263	-	[illegible]	711	-	-	-
Asian	425	243	-	31	151	-	-	-
Other[1]	642	477	-	38	128	-	-	-
Other social scientists								
Sex	51,644	15,059	1,093	[illegible]	13,500	-	-	-
Male	36,363	12,208	1,093	12,857	10,204	-	-	-
Female	15,282	2,850	-	9,135	3,296	-	-	-
Race	51,644	15,059	1,093	21,992	13,500	-	-	-
White	45,940	[illegible]	[illegible]	19,276	12,195	-	-	-
Black	3,453	873	13	1,989	578	-	-	-
Asian	1,474	652	-	256	566	-	-	-
Other[1]	777	146	-	470	161	-	-	-

NOTE: Detail may not add to total due to rounding.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-2. Number of Scientists and Engineers by Field, Sex, Race, and Age: 1982

Field, Sex, and Race	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Total, all fields												
Sex	1,911,917	231,954	306,771	313,302	245,850	201,102	200,919	190,331	123,342	60,018	35,439	3,089
Male	1,729,032	184,920	264,309	279,496	225,823	189,857	190,670	181,778	118,486	58,013	33,465	2,415
Female	182,885	47,034	42,463	33,806	20,027	11,246	10,249	8,553	4,856	2,004	1,974	674
Race	1,911,917	231,954	306,771	313,302	245,850	201,102	200,919	190,331	123,342	60,018	35,439	3,089
White	1,748,284	211,322	274,382	279,493	217,778	182,642	186,613	181,785	119,272	58,051	34,180	2,747
Black	40,877	8,976	8,427	7,523	4,886	4,065	4,261	2,384	1,108	875	184	184
Asian	93,187	9,525	18,453	20,409	18,142	11,371	7,548	4,227	1,962	814	649	88
Other[1]	29,589	4,131	5,509	5,878	4,845	3,023	2,498	1,931	1,000	278	427	70
Physical scientists												
Sex	128,535	12,548	15,853	20,939	18,671	14,174	15,175	13,508	10,053	3,903	3,570	141
Male	115,036	9,632	12,995	19,037	17,352	13,077	14,128	12,868	8,927	3,575	3,304	141
Female	13,499	2,915	2,858	1,903	1,319	1,098	1,047	640	1,125	328	266	-
Race	128,535	12,548	15,853	20,939	18,671	14,174	15,175	13,508	10,053	3,903	3,570	141
White	115,314	11,221	13,840	17,858	16,902	12,707	13,704	12,888	9,454	3,701	3,122	117
Black	2,981	333	445	698	193	214	383	133	324	178	100	-
Asian	8,009	603	1,450	1,911	1,291	1,030	875	419	134	24	247	24
Other[1]	2,232	391	318	472	285	224	233	68	141	-	101	-
Chemists												
Sex	87,544	9,399	9,708	13,785	12,484	8,957	10,483	9,598	7,298	3,129	2,583	141
Male	76,544	7,182	7,510	12,063	11,314	7,996	9,525	9,038	6,640	2,818	2,316	141
Female	11,000	2,217	2,197	1,721	1,170	961	958	560	658	311	246	-
Race	87,544	9,399	9,708	13,785	12,484	8,957	10,483	9,598	7,298	3,129	2,583	141
White	77,258	8,348	8,042	11,399	11,042	7,806	9,497	9,210	6,757	2,927	2,115	117
Black	2,493	305	377	483	185	157	307	108	314	178	100	-
Asian	6,545	578	1,241	1,514	1,152	887	553	214	109	24	247	24
Other[1]	1,249	166	48	389	125	107	126	68	117	-	101	-
Physicists / astronomers												
Sex	28,106	2,035	4,077	5,029	4,368	3,828	3,348	2,483	1,835	571	535	-
Male	26,259	1,586	3,584	4,894	4,304	3,724	3,304	2,423	1,367	554	518	-
Female	1,847	449	494	134	64	104	42	60	468	17	17	-
Race	28,10[illegible]	[illegible]	4,077	5,029	4,368	3,828	3,348	2,483	1,835	571	535	-
White	26,036	[illegible]	3,782	4,537	4,117	3,616	2,957	2,306	1,810	571	535	-
Black	349	19	59	197	19	38	19	-	-	-	-	-
Asian	1,081	-	142	237	122	91	288	177	24	-	-	-
Other[1]	640	211	94	58	110	83	83	-	-	-	-	-
Other physical scientists												
Sex	12,884	1,114	2,086	2,126	1,819	1,390	1,346	1,427	920	203	472	-
Male	12,233	864	1,901	2,079	1,733	1,357	1,299	1,408	920	203	470	-
Female	652	249	167	47	86	33	47	19	-	-	3	-
Race	12,884	1,114	2,086	2,126	1,819	1,390	1,346	1,427	920	203	472	-
White	12,020	1,066	1,818	1,922	1,742	1,296	1,251	1,372	887	203	472	-
Black	139	9	9	19	9	19	37	27	9	-	-	-
Asian	383	24	67	161	18	52	34	27	-	-	-	-
Other[1]	343	12	176	24	49	34	24	-	24	-	-	-
Mathematical scientists												
Sex	48,425	4,224	7,813	10,803	8,354	4,805	4,455	4,016	1,492	1,679	739	46
Male	38,800	2,517	5,910	8,264	7,095	4,227	4,034	3,409	1,234	1,329	739	34
Female	9,625	1,707	1,895	2,539	1,259	578	421	607	258	351	-	12
Race	48,425	4,224	7,813	10,803	8,354	4,805	4,455	4,016	1,492	1,679	739	46
White	43,663	3,525	7,090	10,064	7,621	3,815	3,888	3,801	1,432	1,653	739	34
Black	1,475	126	161	276	103	575	156	9	30	26	-	12
Asian	2,517	260	421	416	510	342	353	196	21	-	-	-
Other[1]	770	311	142	47	120	72	58	9	9	-	-	-
Mathematicians												
Sex	40,777	2,897	5,922	9,191	7,119	4,330	4,263	3,683	1,179	1,480	668	46
Male	33,363	1,908	4,523	7,071	6,184	3,831	3,878	3,131	951	1,185	668	34
Female	7,414	989	1,398	2,120	935	500	384	552	228	296	-	12
Race	40,777	2,897	5,922	9,191	7,119	4,330	4,263	3,683	1,179	1,480	668	46
White	37,005	2,586	5,331	8,599	6,485	3,458	3,734	3,488	1,164	1,454	668	34
Black	1,273	70	119	211	92	563	156	9	15	26	-	12
Asian	1,920	79	329	334	422	246	324	186	-	-	-	-
Other[1]	580	159	142	47	120	63	49	-	-	-	-	-
Statisticians												
Sex	7,649	1,328	1,892	1,611	1,235	474	192	333	313	199	71	-
Male	5,437	610	1,395	1,193	911	396	156	278	283	144	71	-
Female	2,211	718	497	419	324	78	36	55	30	55	-	-
Race	7,649	1,328	1,892	1,611	1,235	474	192	333	313	199	71	-
White	6,660	937	1,759	1,465	1,136	357	155	314	267	199	71	-
Black	202	58	41	65	12	12	-	-	15	-	-	-
Asian	597	161	92	62	88	96	28	10	21	-	-	-
Other[1]	189	152	-	-	-	9	9	9	9	-	-	-
Computer specialists												
Sex	174,033	34,184	46,417	40,967	22,449	14,005	8,769	4,437	1,526	557	[illegible]	519
Male	134,670	21,115	34,988	32,749	19,001	12,746	7,879	3,795	1,297	557	[illegible]	362
Female	39,363	13,066	11,429	8,218	3,449	1,260	890	642	230	-	[illegible]	157
Race	174,033	34,184	46,417	40,967	22,449	14,005	8,769	4,437	1,526	557	201	519
White	157,203	30,849	41,193	37,391	19,977	12,816	8,165	4,049	1,496	547	201	519
Black	5,687	1,207	1,888	1,106	691	345	443	196	-	10	-	-
Asian	8,122	1,437	2,898	1,941	1,131	803	50	50	10	-	-	-
Other[1]	3,022	691	636	527	650	242	111	142	20	-	-	-

See Footnotes at end of Table

Table B-2. **Number of Scientists and Engineers by Field, Sex, Race, and Age: 1982**—continued

Field, Sex, and Race	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Environmental scientists												
Sex	46,056	6,979	8,237	6,175	3,888	5,072	5,223	5,649	2,625	1,373	821	14
Male	42,712	5,519	7,412	5,661	3,702	4,983	5,148	5,552	2,566	1,348	821	-
Female	3,344	1,460	825	514	187	89	75	97	59	25	-	14
Race	46,056	6,979	8,237	6,175	3,888	5,072	5,223	5,649	2,625	1,373	821	14
White	44,158	6,727	7,752	5,962	3,552	4,837	5,034	5,611	2,488	1,373	809	14
Black	325	55	177	15	-	-	55	12	-	-	12	-
Asian	1,061	33	264	180	263	207	87	18	9	-	-	-
Other[1]	511	165	43	18	73	28	47	9	128	-	-	-
Earth scientists												
Sex	38,882	6,151	6,718	4,807	3,040	4,319	4,816	4,908	2,197	1,090	821	14
Male	36,052	4,763	6,109	4,463	2,856	4,246	4,752	4,822	2,154	1,066	821	-
Female	2,830	1,388	609	345	183	73	65	86	42	25	-	14
Race	38,882	6,151	6,718	4,807	3,040	4,319	4,816	4,908	2,197	1,090	821	14
White	37,580	5,961	6,396	4,648	2,770	4,253	4,679	4,881	2,078	1,090	809	14
Black	248	11	166	15	-	-	45	-	-	-	12	-
Asian	635	33	113	127	235	56	45	18	9	-	-	-
Other[1]	419	146	43	18	35	10	47	9	110	-	-	-
Oceanographers												
Sex	1,704	157	313	513	167	206	136	175	36	-	-	-
Male	1,521	157	272	375	163	206	136	175	36	-	-	-
Female	183	-	41	138	4	-	-	-	-	-	-	-
Race	1,704	157	313	513	167	206	136	175	36	-	-	-
White	1,590	139	302	513	149	179	127	163	18	-	-	-
Black	33	-	12	-	-	-	9	12	-	-	-	-
Asian	9	-	-	-	-	9	-	-	-	-	-	-
Other[1]	73	18	-	-	18	18	-	-	18	-	-	-
Atmospheric scientists												
Sex	5,470	671	1,205	855	682	547	270	566	392	282	-	-
Male	5,139	599	1,032	824	682	531	260	555	375	282	-	-
Female	331	72	174	31	-	17	11	11	17	-	-	-
Race	5,470	671	1,205	855	682	547	270	566	392	282	-	-
White	4,989	626	1,054	802	634	405	228	566	392	282	-	-
Black	45	45	-	-	-	-	-	-	-	-	-	-
Asian	417	-	151	53	28	142	42	-	-	-	-	-
Other[1]	20	-	-	-	20	-	-	-	-	-	-	-
Engineers												
Sex	1,146,552	134,175	161,921	164,403	139,427	128,411	128,706	133,480	88,770	41,724	23,919	1,613
Male	1,119,398	121,226	156,330	161,169	137,915	127,156	127,834	132,415	88,423	41,612	23,757	1,562
Female	27,154	12,949	5,591	3,234	1,512	1,256	875	1,065	348	111	162	51
Race	1,146,552	134,175	161,921	164,403	139,427	128,411	128,706	133,480	88,770	41,724	23,919	1,613
White	1,046,453	121,183	143,691	143,301	121,882	116,625	120,506	127,586	86,394	40,846	23,171	1,468
Black	18,938	4,162	4,282	3,098	2,319	1,711	1,466	1,344	394	80	61	20
Asian	62,743	6,478	10,694	13,877	12,818	8,041	5,398	3,136	1,425	629	393	55
Other[1]	18,418	2,353	3,254	4,127	2,808	2,036	1,336	1,414	557	169	294	70
Aeronautical / Astronautical												
Sex	50,229	3,701	3,972	5,169	5,102	7,911	7,952	8,683	5,430	1,633	608	68
Male	49,321	3,332	3,815	5,077	5,051	7,859	7,875	8,597	5,405	1,633	608	68
Female	907	369	157	91	51	52	76	86	25	-	-	-
Race	50,229	3,701	3,972	5,169	5,102	7,911	7,952	8,683	5,430	1,633	608	68
White	47,160	3,437	3,644	4,602	4,612	7,419	7,507	8,381	5,305	1,596	608	68
Black	660	72	51	117	164	119	75	41	20	-	-	-
Asian	1,883	130	267	403	292	210	334	173	18	36	-	-
Other[1]	526	62	9	47	34	164	36	89	86	-	-	-
Chemical												
Sex	68,911	10,875	9,211	9,110	8,632	6,609	6,539	6,956	6,100	3,451	1,360	68
Male	65,707	9,214	8,287	8,764	8,564	6,541	6,444	6,932	6,100	3,451	1,343	68
Female	3,204	1,661	925	346	67	68	95	25	-	-	17	-
Race	68,911	10,875	9,211	9,110	8,632	6,609	6,539	6,956	6,100	3,451	1,360	68
White	61,766	9,735	7,838	7,274	7,167	6,053	6,026	6,821	6,011	3,433	1,342	68
Black	679	327	218	70	20	10	13	10	10	-	-	-
Asian	5,350	646	913	1,517	1,231	404	441	83	79	18	18	-
Other[1]	1,115	167	242	250	213	142	58	43	-	-	-	-
Civil												
Sex	159,708	17,896	24,097	22,958	18,230	18,235	16,636	18,652	11,081	6,378	5,348	196
Male	157,036	16,509	23,617	22,744	18,079	18,116	16,460	18,585	11,021	6,369	5,348	186
Female	2,673	1,387	480	214	151	119	176	67	60	8	-	10
Race	159,708	17,896	24,097	22,958	18,230	18,235	16,636	18,652	11,081	6,378	5,348	196
White	141,230	16,136	21,337	19,286	14,627	15,758	14,892	17,267	10,509	6,011	5,249	157
Black	2,210	319	484	296	311	197	292	215	55	10	10	20
Asian	12,998	1,053	1,617	2,410	2,871	1,914	1,314	1,011	416	356	36	-
Other[1]	3,270	388	659	966	422	365	138	160	102	-	52	18
Electrical / Electronic												
Sex	262,300	32,695	38,147	40,200	34,486	30,122	32,525	27,915	15,342	6,243	4,258	366
Male	258,336	30,851	37,523	39,602	34,195	29,802	32,405	27,804	15,311	6,235	4,250	357
Female	3,963	1,844	624	597	291	321	120	110	32	8	8	8
Race	262,300	32,695	38,147	40,200	34,486	30,122	32,525	27,915	15,342	6,243	4,258	366
White	235,767	29,099	32,970	34,658	30,069	27,5[illegible]	29,859	26,241	14,804	6,207	3,941	347
Black	6,044	1,168	1,416	836	706	422	649	604	125	18	-	-
Asian	16,620	1,907	3,180	3,828	3,071	1,791	1,654	690	379	18	283	18
Other[1]	3,869	521	581	877	640	339	364	380	34	-	34	-

See Footnotes at end of Table

Table B-2. Number of Scientists and Engineers by Field, Sex, Race, and Age: 1982—continued

Field, Sex, and Race	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Industrial												
Sex	74,698	8,698	11,001	12,213	9,639	9,139	8,025	7,310	4,999	2,597	833	244
Male	72,382	7,390	10,515	11,968	9,502	9,090	8,016	7,265	4,971	2,597	824	244
Female	2,316	1,308	486	245	137	50	8	45	28	-	8	-
Race	74,698	8,698	11,001	12,213	9,639	9,139	8,025	7,310	4,999	2,597	833	244
White	70,569	8,007	10,002	11,143	9,135	8,591	7,885	7,227	4,934	2,587	833	244
Black	1,137	267	259	236	136	102	51	46	31	10	-	-
Asian	2,321	263	557	754	330	344	55	18	-	-	-	-
Other[1]	650	162	183	80	38	102	34	18	34	-	-	-
Materials												
Sex	25,535	2,836	3,095	3,989	3,350	2,437	2,566	3,486	2,596	790	381	8
Male	24,765	2,374	3,019	3,922	3,294	2,386	2,566	3,469	2,563	790	381	-
Female	770	462	76	67	56	50	-	17	33	-	-	8
Race	25,535	2,836	3,095	3,989	3,350	2,437	2,566	3,486	2,596	790	381	8
White	23,202	2,279	2,771	3,453	2,907	2,184	2,499	3,408	2,560	762	371	8
Black	184	51	41	20	10	-	31	10	-	10	10	-
Asian	1,863	445	265	481	399	200	18	-	36	18	-	-
Other[1]	286	61	18	34	34	52	18	68	-	-	-	-
Mechanical												
Sex	228,891	24,493	28,140	29,139	28,692	25,549	24,255	30,121	22,539	10,389	5,301	274
Male	225,044	22,554	27,637	28,668	28,522	25,355	24,142	29,759	22,489	10,344	5,301	274
Female	3,847	1,940	503	471	170	194	113	362	50	45	-	-
Race	228,891	24,493	28,140	29,139	28,692	25,549	24,255	30,121	22,539	10,389	5,301	274
White	211,077	22,157	25,147	25,505	25,452	23,471	22,786	28,895	21,973	10,064	5,213	203
Black	2,405	623	395	446	205	195	163	276	71	10	20	-
Asian	11,703	1,097	1,869	2,345	2,653	1,512	1,041	706	316	146	-	18
Other[1]	3,706	416	728	843	373	369	264	244	179	169	68	52
Mining												
Sex	8,303	1,574	1,331	1,034	578	344	684	1,067	916	491	285	-
Male	8,093	1,502	1,322	1,020	565	344	684	1,067	916	491	172	-
Female	210	72	8	13	13	-	-	-	-	-	113	-
Race	8,303	1,574	1,331	1,034	578	344	684	1,067	916	491	285	-
White	8,002	1,574	1,258	1,024	560	290	684	958	898	491	268	-
Black	26	-	-	10	-	-	-	-	18	-	-	-
Asian	109	-	55	-	18	36	-	-	-	-	-	-
Other[1]	163	-	18	-	-	18	-	109	-	-	18	-
Nuclear												
Sex	10,016	1,355	1,893	2,206	1,550	984	837	649	457	68	18	-
Male	9,844	1,272	1,840	2,188	1,547	976	837	640	457	68	18	-
Female	173	83	53	18	3	8	-	8	-	-	-	-
Race	10,016	1,355	1,893	2,206	1,550	984	837	649	457	68	18	-
White	9,064	1,262	1,667	1,937	1,251	974	818	630	457	68	-	-
Black	82	20	10	31	10	10	-	-	-	-	-	-
Asian	730	73	182	202	219	-	18	18	-	-	18	-
Other[1]	141	-	34	36	70	-	-	-	-	-	-	-
Petroleum												
Sex	15,038	2,939	1,828	1,391	903	1,645	2,215	1,915	1,323	428	418	34
Male	14,647	2,692	1,779	1,338	895	1,645	2,215	1,915	1,289	428	418	34
Female	391	247	49	53	8	-	-	-	34	-	-	-
Race	15,038	2,939	1,828	1,391	903	1,645	2,215	1,915	1,323	428	418	34
White	14,063	2,737	1,656	1,263	723	1,489	2,197	1,861	1,288	428	389	34
Black	149	61	20	37	10	10	-	-	-	-	10	-
Asian	302	64	74	73	18	36	-	18	18	-	-	-
Other[1]	524	77	78	18	152	109	18	36	18	-	18	-
Other												
Sex	242,923	27,112	39,206	36,995	28,265	25,436	26,476	26,726	17,986	9,256	5,109	356
Male	234,232	23,535	36,976	35,878	27,700	25,042	26,189	26,381	17,901	9,206	5,093	331
Female	8,691	3,577	2,231	1,117	564	393	287	345	85	50	17	25
Race	242,923	27,112	39,206	36,995	28,265	25,436	26,476	26,726	17,986	9,256	5,109	356
White	224,512	24,559	35,401	33,155	25,169	22,824	25,354	25,897	17,657	9,199	4,958	338
Black	5,360	1,252	1,386	900	746	645	193	143	65	20	10	-
Asian	8,863	801	1,715	2,064	1,517	[illegible]	523	418	161	36	36	18
Other[1]	4,168	500	704	876	833	374	405	267	104	-	104	-
Life scientists												
Sex	149,477	19,654	24,893	26,205	19,762	14,010	16,408	13,430	7,949	4,660	2,359	146
Male	123,203	13,657	18,967	21,472	16,326	12,200	14,878	11,768	7,318	4,523	1,987	107
Female	26,274	5,998	5,926	4,732	3,436	1,811	1,530	1,662	631	137	372	39
Race	149,477	19,654	24,893	26,205	19,762	14,010	16,408	13,430	7,949	4,660	2,359	146
White	139,410	18,987	22,212	24,524	17,910	12,968	15,538	12,728	7,753	4,324	2,319	146
Black	2,702	169	610	480	394	271	196	342	32	208	-	-
Asian	5,516	377	1,439	1,034	1,354	673	406	121	83	18	9	-
Other[1]	1,849	122	632	167	105	98	266	239	80	109	31	-
Biologists												
Sex	92,906	14,022	17,845	17,356	11,585	8,746	8,580	6,935	4,507	2,147	1,045	137
Male	75,265	9,363	13,986	14,027	9,442	7,571	7,807	5,966	3,961	2,068	967	107
Female	17,641	4,659	3,860	3,329	2,144	1,176	773	969	546	78	78	29
Race	92,906	14,022	17,845	17,356	11,585	8,746	8,580	6,935	4,507	2,147	1,045	137
White	87,267	13,507	16,404	16,138	10,797	8,168	8,168	6,594	4,402	1,949	1,005	137
Black	2,210	127	529	387	329	231	145	252	22	189	-	-
Asian	2,526	267	574	719	426	308	132	46	37	9	9	-
Other[1]	903	122	339	112	34	40	135	43	47	-	31	-

See Footnotes at end of Table

Table B-2. Number of Scientists and Engineers by Field, Sex, Race, and Age: 1982—continued

Field, Sex, and Race	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Biochemists												
Sex	10,476	952	1,632	2,098	1,604	1,168	989	980	382	449	221	-
Male	8,171	836	983	1,681	1,357	839	756	807	373	429	108	-
Female	2,305	115	649	417	247	329	233	173	9	20	113	-
Race	10,476	952	1,632	2,098	1,604	1,168	989	980	382	449	221	-
White	9,292	924	1,502	1,902	1,305	878	901	889	330	440	221	-
Black	130	-	9	32	20	10	9	40	-	9	-	-
Asian	968	28	121	165	247	280	79	20	28	-	-	-
Other[1]	86	-	-	-	31	-	-	31	24	-	-	-
Agricultural scientists												
Sex	30,263	3,656	3,501	4,471	4,046	2,887	5,230	3,095	1,704	1,321	542	-
Male	28,102	2,816	2,883	4,122	3,861	2,866	5,101	3,085	1,704	1,321	542	-
Female	2,161	840	618	348	185	21	139	10	-	-	-	-
Race	30,263	3,656	3,501	4,471	4,046	2,887	5,230	3,095	1,704	1,321	542	-
White	28,284	3,564	3,070	4,270	3,510	2,828	4,920	2,891	1,676	1,212	542	-
Black	238	31	50	62	34	21	[illegible]	21	10	-	-	-
Asian	1,176	61	264	113	493	30	179	27	9	-	-	-
Other[1]	565	-	118	26	9	9	130	156	9	109	-	-
Medical scientists												
Sex	15,831	1,024	1,914	2,280	2,527	1,409	1,600	2,420	1,355	743	550	10
Male	11,664	640	1,114	1,642	1,666	1,124	1,214	1,910	1,280	704	369	-
Female	4,167	384	800	638	861	284	386	510	75	39	181	10
Race	15,831	1,024	1,914	2,280	2,527	1,409	1,600	2,420	1,355	743	550	10
White	14,563	991	1,235	2,214	2,296	1,295	1,549	2,354	1,346	724	550	10
Black	125	12	23	-	[illegible]	9	32	29	-	10	-	-
Asian	848	21	480	37	[illegible]	55	19	28	9	9	-	-
Other[1]	295	-	176	29	31	49	-	10	-	-	-	-
Psychologists												
Sex	90,225	7,622	18,770	18,734	12,998	9,561	10,347	6,122	3,689	1,415	645	324
Male	56,938	3,393	11,482	12,015	8,546	6,433	7,304	4,145	2,364	882	311	64
Female	33,287	4,229	7,288	6,718	4,452	3,127	3,043	1,976	1,326	534	333	260
Race	90,225	7,622	18,770	18,734	12,998	9,561	10,347	6,122	3,689	1,415	645	324
White	85,476	7,259	18,002	17,865	12,070	8,968	9,649	5,911	3,569	1,379	633	172
Black	2,914	294	402	395	459	370	616	132	47	36	11	152
Asian	948	40	224	318	141	97	69	50	9	-	-	-
Other[1]	885	28	143	156	328	126	13	28	64	-	-	-
Social scientists												
Sex	128,615	12,567	22,867	25,077	20,100	11,063	11,833	9,690	7,236	4,708	3,186	286
Male	98,275	7,861	16,217	19,129	15,686	9,036	9,465	7,826	6,356	4,189	2,365	145
Female	30,339	4,707	6,650	5,948	4,414	2,026	2,368	1,864	880	519	821	141
Race	128,615	12,567	22,867	25,077	20,100	11,063	11,833	9,690	7,236	4,708	3,186	286
White	116,586	11,572	20,802	22,527	18,065	9,907	10,125	9,211	6,686	4,229	3,186	276
Black	5,854	629	663	1,453	726	580	966	220	281	336	-	-
Asian	4,272	297	1,063	732	834	378	308	238	271	142	-	9
Other[1]	1,903	70	339	364	476	198	435	21	-	-	-	-
Economists												
Sex	51,831	4,680	7,575	9,946	7,561	4,919	4,965	4,298	3,630	2,812	1,323	121
Male	46,126	3,036	6,267	9,297	7,224	4,440	4,788	3,919	3,310	2,650	1,077	121
Female	5,705	1,644	1,308	650	337	479	176	379	320	162	246	-
Race	51,831	4,680	7,575	9,946	7,561	4,919	4,965	4,298	3,630	2,812	1,323	121
White	48,225	4,293	6,642	9,496	6,703	4,794	4,689	4,065	3,598	2,502	1,323	121
Black	750	81	177	86	154	28	40	15	-	168	-	-
Asian	2,373	256	711	208	659	63	93	208	32	142	-	-
Other[1]	484	50	45	156	45	35	143	11	-	-	-	-
Sociologists / anthropologists												
Sex	25,139	1,831	5,526	5,954	4,781	1,456	1,998	1,897	662	546	335	156
Male	15,787	1,069	3,281	3,074	3,344	892	1,478	1,250	622	418	335	24
Female	9,353	762	2,245	2,879	1,437	564	519	648	40	128	-	132
Race	25,139	1,831	5,526	5,954	4,781	1,456	1,998	1,897	662	546	335	156
White	22,421	1,780	5,334	4,817	4,106	1,404	1,736	1,837	539	378	335	156
Black	1,651	28	61	810	235	15	183	39	113	168	-	-
Asian	425	12	-	198	142	-	52	11	10	-	-	-
Other[1]	642	11	131	129	298	38	26	11	-	-	-	-
Other social scientists												
Sex	51,644	6,057	9,766	9,175	7,758	4,689	4,872	3,494	2,946	1,350	1,528	9
Male	36,363	3,756	6,669	6,757	5,119	3,703	3,199	2,657	2,426	1,120	956	-
Female	15,282	2,301	3,097	2,418	2,639	985	1,673	837	520	230	572	9
Race	51,644	6,057	9,766	9,175	7,758	4,689	4,872	3,494	2,946	1,350	1,528	9
White	45,940	5,498	8,827	8,213	7,256	3,709	3,700	3,308	2,549	1,350	1,528	-
Black	3,453	520	425	556	337	538	743	166	168	-	-	-
Asian	1,474	29	351	326	32	315	162	20	229	-	-	9
Other[1]	777	9	162	80	133	126	266	-	-	-	-	-

NOTE: Detail may not add to total due to rounding.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-3. Number of Scientists and Engineers by Field, Highest Degree, and Age: 1982

Field and Highest Degree	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Total, all fields	1,911,917	221,964	306,771	313,292	245,899	201,102	200,910	198,231	123,342	60,018	36,430	3,880
Doctorate	275,615	10,175	36,562	57,323	51,281	34,218	32,046	23,644	15,104	8,329	6,547	385
Professional/medical	10,907	452	1,027	986	1,476	1,278	1,230	1,930	1,119	908	580	-
Master's	473,540	53,567	88,147	95,284	68,564	48,274	42,120	38,651	23,648	10,733	6,929	652
Bachelor's	958,625	151,982	157,841	134,513	103,121	94,422	100,949	105,235	63,388	29,256	16,137	1,823
Associate	37,430	4,780	7,587	6,776	5,163	4,082	3,675	2,047	1,485	703	237	34
Other	486	186	-	34	143	-	34	8	34	68	-	-
No degree	155,207	10,851	15,828	18,405	17,902	16,919	20,886	20,816	18,606	10,021	5,000	186
Physical scientists	128,536	12,548	15,863	20,939	18,671	14,174	17,175	13,998	10,863	3,903	3,670	141
Doctorate	52,134	2,805	5,503	9,096	8,836	6,409	7,135	5,330	3,888	1,442	1,746	141
Professional/medical	219	58	-	52	-	-	-	109	-	-	-	-
Master's	28,108	2,626	3,899	5,657	4,149	3,525	2,173	2,197	2,159	844	886	-
Bachelor's	48,075	7,258	6,461	6,134	5,684	4,241	5,868	5,872	4,005	1,616	937	-
Chemists	87,544	9,280	9,785	13,786	12,484	8,957	10,483	9,586	7,288	3,129	2,563	141
Doctorate	29,826	1,863	2,548	5,402	4,904	3,492	4,217	2,703	2,378	1,036	1,052	141
Professional/medical	176	58	-	9	-	-	-	109	-	-	-	-
Master's	18,080	1,380	1,956	3,463	2,926	2,087	1,436	1,758	1,437	743	871	-
Bachelor's	39,482	6,029	5,205	4,911	4,584	3,378	4,827	5,029	3,483	1,348	640	-
Physicists / astronomers	28,169	2,036	4,077	5,889	4,388	3,838	2,346	2,483	1,836	571	535	-
Doctorate	16,522	572	2,015	2,898	2,703	2,582	2,263	1,899	1,273	201	316	-
Professional/medical	34	-	-	34	-	-	-	-	-	-	-	-
Master's	6,319	918	1,250	1,466	895	779	403	254	236	101	17	-
Bachelor's	5,232	545	812	831	770	486	680	330	327	268	202	-
Other physical scientists	12,894	1,114	2,000	2,126	1,819	1,380	1,346	1,427	930	203	472	-
Doctorate	5,786	170	943	886	1,141	336	655	729	236	203	377	-
Professional/medical	9	-	-	9	-	-	-	-	-	-	-	-
Master's	3,728	327	662	729	326	659	331	185	487	-	-	-
Bachelor's	3,361	616	443	502	350	394	361	513	196	-	95	-
Mathematical scientists	48,425	4,224	7,813	10,783	8,364	4,306	4,486	4,016	1,492	1,679	739	46
Doctorate	17,551	517	2,236	3,655	3,782	2,316	2,116	1,498	420	678	321	12
Professional/medical	93	-	-	65	-	9	-	18	-	-	-	-
Master's	16,949	2,540	3,024	3,986	2,196	949	1,000	1,342	713	884	281	34
Bachelor's	13,832	1,167	2,554	3,086	2,375	1,531	1,339	1,158	358	117	137	-
Mathematicians	40,777	2,897	5,822	8,181	7,119	4,230	4,263	3,693	1,179	1,480	668	46
Doctorate	15,052	489	1,616	3,130	3,096	2,071	2,008	1,435	358	534	303	12
Professional/medical	72	-	-	54	-	-	-	18	-	-	-	-
Master's	13,359	1,656	2,134	3,281	1,729	862	933	1,161	493	830	245	34
Bachelor's	12,294	751	2,172	2,727	2,294	1,307	1,321	1,069	328	117	119	-
Statisticians	7,649	1,328	1,992	1,611	1,236	474	182	323	313	199	71	-
Doctorate	2,499	28	620	525	686	244	106	63	83	145	18	-
Professional/medical	21	-	-	12	-	9	-	-	-	-	-	-
Master's	3,590	884	990	706	468	86	67	180	220	54	36	-
Bachelor's	1,538	416	383	369	81	134	18	80	30	-	18	-
Computer specialists	174,833	34,184	46,417	40,867	22,449	14,005	8,769	4,437	[illegible]	557	201	519
Doctorate	7,435	533	1,483	2,436	1,200	1,039	175	321	89	109	-	-
Professional/medical	355	-	72	9	11	-	145	117	-	-	-	-
Master's	49,306	5,962	14,236	14,320	6,373	4,026	2,378	1,386	552	72	-	-
Bachelor's	116,937	27,689	30,624	24,153	14,864	8,940	6,072	2,613	885	376	201	519
Environmental scientists	46,856	6,979	8,237	6,175	[illegible]	5,072	5,223	5,849	2,626	1,373	821	14
Doctorate	8,920	375	1,113	1,502	1,725	1,487	680	687	566	275	311	-
Professional/medical	200	-	18	18	-	100	-	54	-	-	-	-
Master's	16,275	2,347	3,755	2,585	1,313	1,824	1,702	1,900	686	333	226	-
Bachelor's	20,601	4,258	3,351	2,071	846	1,653	2,841	3,407	1,372	765	284	14
Earth scientists	38,882	6,151	6,716	4,807	3,040	4,318	4,816	4,906	2,197	1,080	821	14
Doctorate	6,732	214	800	1,048	1,267	1,238	711	390	514	230	311	-
Professional/medical	200	-	18	18	-	109	-	54	-	-	-	-
Master's	13,873	2,133	2,999	2,278	1,045	1,465	1,619	1,255	520	333	226	-
Bachelor's	18,077	3,806	2,901	1,462	728	1,506	2,487	3,208	1,162	519	284	14
Oceanographers	1,704	157	313	513	167	298	136	175	36	-	-	-
Doctorate	467	-	57	207	56	9	118	18	-	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-
Master's	756	112	113	152	91	143	-	127	18	-	-	-
Bachelor's	481	45	144	153	18	55	18	30	18	-	-	-
Atmospheric scientists	6,479	671	1,205	865	682	547	270	505	392	282	-	-
Doctorate	1,722	161	256	246	400	240	51	279	52	36	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-
Master's	1,646	102	642	154	182	216	83	118	148	-	-	-
Bachelor's	2,103	406	307	455	100	91	136	109	192	246	-	-

See Footnotes at end of Table

Table B-3. Number of Scientists and Engineers by Field, Highest Degree, and Age: 1982—continued

Field and Highest Degree	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Engineers	1,146,882	134,175	161,821	164,403	139,427	138,411	128,708	133,480	88,770	41,724	23,910	1,613
Doctorate	47,834	1,057	4,967	10,185	10,888	7,247	5,165	3,757	2,487	835	1,237	30
Professional/medical	2,985	216	456	286	256	418	332	560	341	36	101	-
Master's	247,830	22,489	39,763	46,731	38,342	29,455	24,294	22,209	13,825	6,605	3,832	285
Bachelor's	654,962	94,614	93,500	82,007	66,853	69,381	74,342	84,083	52,013	23,456	13,513	1,089
Associate	37,439	4,780	7,567	6,776	5,183	4,992	3,675	2,047	1,465	703	227	34
Other	466	168	-	34	143	-	34	8	34	68	-	-
No degree	155,207	10,851	15,629	18,405	17,802	16,918	20,865	20,816	18,606	10,021	5,000	196
Aeronautical / Astronautical	50,229	3,701	3,872	5,168	5,102	7,911	7,952	8,683	5,430	1,633	609	68
Doctorate	2,984	34	268	678	562	310	432	564	102	34	-	-
Professional/medical	354	-	101	-	-	109	-	110	34	-	-	-
Master's	13,939	1,102	1,121	1,963	1,961	2,580	1,912	1,906	745	447	169	34
Bachelor's	24,274	2,131	1,837	2,068	1,884	3,472	4,253	4,727	2,923	575	271	34
Associate	1,591	143	154	42	192	511	225	86	203	-	34	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
No degree	7,087	291	391	417	503	930	1,129	1,291	1,423	577	135	-
Chemical	68,911	10,875	9,211	9,110	8,832	6,609	6,539	6,966	6,100	3,451	1,360	68
Doctorate	6,647	118	820	1,321	1,867	688	833	340	674	-	387	-
Professional/medical	154	10	8	-	34	34	-	68	-	-	-	-
Master's	17,010	1,883	2,567	3,275	2,291	1,723	1,370	1,472	1,171	1,088	342	-
Bachelor's	41,736	8,769	5,501	3,947	4,285	3,774	4,012	4,949	3,909	1,892	530	68
Associate	381	8	34	102	34	34	68	-	68	34	-	-
Other	34	-	-	-	-	-	-	-	34	-	-	-
No degree	2,949	267	352	465	321	356	256	128	244	436	101	-
Civil	159,706	17,898	24,098	22,968	18,239	18,236	16,636	18,653	11,061	6,378	5,348	196
Doctorate	4,867	261	641	678	727	1,112	324	356	88	218	62	12
Professional/medical	378	3	120	34	18	68	-	101	34	-	-	-
Master's	32,752	2,551	5,773	6,051	5,215	3,754	3,362	2,784	2,064	718	442	18
Bachelor's	100,616	13,233	15,516	13,107	9,802	10,950	10,158	12,852	7,424	3,753	3,856	166
Associate	3,952	642	535	775	583	537	375	136	86	203	101	-
Other	276	34	-	-	143	-	34	-	-	68	-	-
No degree	17,086	1,174	1,513	2,112	1,983	1,815	2,383	2,424	1,365	1,419	887	-
Electrical / Electronic	262,508	32,696	38,147	40,409	34,486	30,122	32,525	27,915	15,342	6,243	4,258	365
Doctorate	10,149	104	1,080	1,563	2,630	1,605	1,302	1,073	424	109	270	-
Professional/medical	695	153	78	47	73	86	179	27	34	18	-	-
Master's	60,314	5,714	9,379	11,822	10,616	7,409	6,296	4,940	2,609	1,011	623	94
Bachelor's	150,001	22,849	21,725	20,811	16,226	16,322	19,010	17,128	9,044	4,022	2,626	237
Associate	10,330	1,371	1,880	1,922	1,500	1,462	1,225	620	271	68	-	-
Other	68	68	-	-	-	-	-	-	-	-	-	-
No degree	30,747	2,437	3,997	4,244	3,442	3,238	4,513	4,127	2,961	1,015	739	34
Industrial	74,639	8,698	11,001	12,213	9,839	9,339	8,025	7,310	4,999	2,598	830	244
Doctorate	1,210	-	56	421	252	211	109	68	68	34	-	-
Professional/medical	86	-	-	18	-	-	-	34	34	-	-	-
Master's	13,423	1,127	2,613	3,084	1,928	1,823	1,158	750	759	413	34	34
Bachelor's	43,772	6,549	6,500	6,642	5,427	5,440	4,569	4,788	2,286	1,035	426	211
Associate	2,487	284	648	381	300	264	271	170	102	34	34	-
Other	8	-	-	-	-	-	-	8	-	-	-	-
No degree	13,703	738	1,184	1,666	1,934	1,602	1,918	1,492	1,750	1,082	336	-
Materials	25,636	2,836	3,096	3,789	3,349	2,437	2,566	3,486	2,796	790	381	8
Doctorate	3,557	113	708	644	788	501	387	52	52	-	111	-
Professional/medical	195	-	109	-	-	-	34	34	-	18	-	-
Master's	6,382	900	560	1,170	790	498	468	1,120	583	163	[illegible]	8
Bachelor's	12,605	1,747	1,502	1,561	1,471	880	1,179	2,026	1,831	474	[illegible]	-
Associate	453	-	102	102	164	18	34	-	-	34	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
No degree	2,383	76	115	312	136	540	465	254	330	101	34	-
Mechanical	228,891	24,493	28,140	29,139	26,882	25,548	26,055	30,121	22,539	10,389	5,301	274
Doctorate	6,586	110	420	1,558	1,002	1,023	483	191	531	153	213	-
Professional/medical	339	34	22	-	80	68	-	34	102	-	-	-
Master's	47,416	3,842	6,118	8,825	7,899	5,463	4,797	4,358	3,410	1,582	1,066	34
Bachelor's	140,900	18,059	17,964	14,970	14,971	15,174	15,926	21,187	14,180	6,047	3,068	154
Associate	6,778	979	1,351	1,215	840	920	323	375	452	221	68	34
Other	-	-	-	-	-	-	-	-	-	-	-	-
No degree	26,872	1,469	2,265	2,571	3,000	2,900	3,525	3,976	3,864	2,386	883	52
Mining	8,303	1,574	1,331	1,034	578	344	684	1,067	918	491	286	-
Doctorate	419	-	122	34	-	136	-	-	109	-	18	-
Professional/medical	18	-	-	-	-	-	18	-	-	-	-	-
Master's	873	37	70	265	70	52	258	100	18	3	-	-
Bachelor's	6,341	1,485	1,052	667	437	104	374	899	602	454	266	-
Associate	71	-	68	-	3	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
No degree	581	52	18	68	68	52	34	68	187	34	-	-
Nuclear	10,016	1,355	1,893	2,206	1,550	984	837	649	458	68	18	-
Doctorate	872	-	131	445	86	143	34	34	-	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-
Master's	3,654	436	738	794	652	282	398	143	177	34	-	-
Bachelor's	4,359	773	821	828	590	458	371	321	179	-	18	-
Associate	180	44	68	34	-	34	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
No degree	951	102	136	104	222	68	34	151	102	34	-	-
Petroleum	15,039	2,939	1,828	1,391	903	1,646	2,215	1,916	1,323	428	418	34
Doctorate	706	-	52	86	297	52	34	151	-	34	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-
Master's	2,260	251	373	250	123	397	319	263	64	18	202	-
Bachelor's	10,222	2,273	1,033	851	450	1,061	1,656	1,179	1,157	376	153	34
Associate	102	34	34	-	-	34	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
No degree	1,749	381	336	203	34	102	206	323	102	-	63	-
Other	242,923	27,112	39,396	36,995	28,285	25,436	26,476	26,726	17,988	9,256	5,129	336
Doctorate	9,829	317	880	2,346	1,757	1,467	1,227	930	438	253	185	18
Professional/medical	780	18	20	187	52	53	102	143	104	-	101	-
Master's	49,825	4,848	10,441	9,431	6,896	5,675	3,955	4,373	2,205	1,128	831	42
Bachelor's	120,134	16,745	19,849	16,553	11,710	11,747	13,636	14,039	8,680	4,829	2,181	166
Associate	11,115	1,275	2,884	2,203	1,568	1,179	1,153	661	283	109	-	-
Other	98	64	-	34	-	-	-	-	-	-	-	-
No degree	51,142	3,845	5,321	6,241	6,261	5,315	6,403	6,580	6,277	2,936	1,831	110

See Footnotes at end of Table

Table B-3. Number of Scientists and Engineers by Field, Highest Degree, and Age: 1982–continued

Field and Highest Degree	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Life scientists	146,477	19,654	24,883	28,205	19,782	14,010	16,406	13,430	7,949	4,880	2,359	146
Doctorate	54,275	1,882	6,302	11,188	9,800	6,498	6,884	5,271	3,353	2,245	810	43
Professional/medical	5,080	55	319	336	577	655	584	854	669	650	379	-
Master's	36,181	6,553	7,765	6,451	3,847	3,117	2,867	2,610	1,704	535	712	20
Bachelor's	53,941	11,164	10,507	8,230	5,536	3,740	6,073	4,094	2,222	1,229	458	84
Biologists	82,986	14,022	17,848	17,356	11,585	8,746	8,580	6,935	4,507	2,147	1,045	137
Doctorate	32,485	853	3,535	7,255	6,273	4,103	3,740	2,323	2,376	1,468	515	43
Professional/medical	680	-	249	-	10	218	-	173	-	-	10	-
Master's	23,460	4,826	5,819	4,554	2,230	2,067	1,579	1,088	734	372	171	20
Bachelor's	36,301	8,343	8,242	5,546	3,073	2,360	3,261	3,350	1,397	306	349	74
Biochemists	10,476	952	1,632	2,098	1,604	1,168	999	980	382	449	221	-
Doctorate	7,832	474	1,175	1,749	1,254	989	670	852	230	331	109	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-
Master's	1,912	332	322	294	332	62	211	119	118	9	113	-
Bachelor's	732	146	135	55	18	117	109	9	34	109	-	-
Agricultural scientists	30,263	3,656	3,501	4,471	4,046	2,687	5,239	3,095	1,704	1,321	542	-
Doctorate	8,071	374	736	1,097	1,159	681	1,970	1,112	465	352	123	-
Professional/medical	109	-	-	-	-	-	-	-	-	109	-	-
Master's	7,777	1,133	982	1,128	1,036	783	726	914	642	123	311	-
Bachelor's	14,307	2,149	1,782	2,246	1,852	1,223	2,543	1,069	597	737	109	-
Medical scientists	15,831	1,024	1,914	2,200	2,527	1,409	1,599	2,420	1,355	743	550	10
Doctorate	5,887	181	854	1,086	1,115	725	504	984	282	93	64	-
Professional/medical	4,311	55	70	336	568	438	584	681	669	541	369	-
Master's	3,032	263	641	475	250	205	352	490	209	31	117	-
Bachelor's	2,601	525	348	364	595	41	159	266	195	78	-	10
Psychologists	90,225	7,622	18,770	18,734	12,998	9,561	10,347	6,122	3,689	1,415	645	324
Doctorate	44,298	1,591	8,187	10,064	6,682	5,059	5,600	3,512	1,859	977	579	108
Professional/medical	232	-	-	-	-	64	168	-	-	-	-	-
Master's	35,103	4,627	7,716	6,609	4,780	3,495	3,554	2,256	1,412	374	65	216
Bachelor's	10,591	1,404	2,867	2,061	1,536	943	945	354	418	64	-	-
Social scientists	128,616	12,887	22,867	25,077	20,199	11,063	11,833	9,890	7,238	4,708	3,186	286
Doctorate	43,366	1,616	6,751	9,168	8,565	4,164	4,011	3,267	2,442	1,769	1,543	51
Professional/medical	1,824	121	161	222	630	23	-	228	109	222	109	-
Master's	43,799	6,423	7,979	8,925	5,559	2,884	4,152	3,151	2,596	1,086	926	118
Bachelor's	39,625	4,408	7,977	6,761	5,326	3,993	3,670	3,043	2,091	1,632	608	117
Economists	51,831	4,880	7,575	9,948	7,561	4,919	4,965	4,298	3,630	2,812	1,323	121
Doctorate	16,882	823	2,595	3,505	3,011	1,656	1,195	1,494	1,088	936	567	12
Professional/medical	531	12	24	12	119	23	-	119	109	113	-	-
Master's	15,659	2,507	2,367	3,340	1,735	846	1,385	1,062	1,317	611	381	109
Bachelor's	18,759	1,337	2,590	3,091	2,696	2,395	2,385	1,623	1,115	1,152	374	-
Sociologists / anthropologists	25,139	1,831	5,526	5,954	4,781	1,456	1,996	1,897	662	548	335	[illegible]
Doctorate	11,425	145	2,151	2,403	2,767	773	1,255	936	268	366	323	39
Professional/medical	200	-	15	109	78	-	-	-	-	-	-	-
Master's	6,146	857	1,834	1,715	741	321	457	262	150	12	-	-
Bachelor's	7,367	829	1,727	1,726	1,196	362	284	699	244	169	12	117
Other social scientists	51,644	6,057	9,766	9,175	7,756	4,689	4,872	3,494	2,946	1,350	1,528	9
Doctorate	15,059	646	2,006	3,260	2,806	1,735	1,561	837	1,086	467	653	-
Professional/medical	[illegible]	109	122	101	435	-	-	109	-	109	109	-
Master's	21,992	3,059	3,978	3,870	3,084	1,718	2,310	1,828	1,128	463	545	9
Bachelor's	13,500	2,242	3,660	1,944	1,432	1,236	1,001	720	732	311	221	-

NOTE: Detail may not add to total due to rounding.

Source: National Science Foundation.

Table B-4. **Number of Scientists and Engineers by Field, Sex, and Race: 1982**

Field	Both sexes					Male					Female				
	Total	White	Black	Asian	Other¹	Total	White	Black	Asian	Other¹	Total	White	Black	Asian	Other¹
Total, all fields	**1,911,917**	**1,748,264**	**40,877**	**93,187**	**29,589**	**1,729,032**	**1,587,226**	**31,740**	**83,609**	**26,457**	**182,885**	**161,038**	**9,136**	**9,579**	**3,132**
Physical scientists	**128,535**	**115,314**	**2,981**	**8,009**	**2,232**	**115,036**	**104,026**	**2,508**	**6,343**	**2,157**	**13,499**	**11,286**	**473**	**1,666**	**75**
Chemists	87,544	77,258	2,493	6,545	1,249	76,544	68,392	2,038	4,940	1,174	11,000	8,865	455	1,605	75
Physicists / astronomers	28,106	26,036	349	1,081	640	26,259	24,237	340	1,041	640	1,847	1,798	9	39	-
Other physical scientists	12,884	12,020	139	383	343	12,233	11,398	130	362	343	652	622	9	21	-
Mathematicl. scientists	**48,425**	**43,663**	**1,475**	**2,517**	**770**	**38,800**	**35,410**	**905**	**2,059**	**426**	**9,625**	**8,252**	**570**	**458**	**344**
Mathemtcns.	40,777	37,003	1,273	1,920	580	33,363	30,397	831	1,747	388	7,414	6,606	443	173	192
Statisticians	7,649	6,660	202	597	190	5,437	5,013	74	312	38	2,211	1,647	128	285	152
Computer specists.	**174,033**	**157,202**	**5,687**	**8,122**	**3,022**	**134,670**	**122,658**	**3,496**	**6,137**	**2,387**	**39,363**	**34,544**	**2,190**	**1,984**	**636**
Environmntl. scientists	**46,056**	**44,159**	**325**	**1,061**	**511**	**42,712**	**40,946**	**282**	**1,006**	**479**	**3,344**	**3,213**	**43**	**56**	**32**
Earth scientists	38,882	37,580	248	635	419	36,052	34,850	226	589	387	2,830	2,730	22	46	32
Oceanographers	1,704	1,570	33	9	73	1,521	1,407	33	9	73	183	163	-	-	-
Atmospheric scientists	5,470	4,989	45	417	20	5,139	4,689	23	407	20	331	300	21	10	-
Engineers	**1,146,582**	**1,046,453**	**19,136**	**62,743**	**18,418**	**1,119,398**	**1,023,846**	**17,584**	**60,528**	**17,840**	**27,184**	**22,607**	**1,565**	**2,215**	**573**
Aeronautical / astronautical	50,229	47,180	860	1,863	526	49,321	46,369	829	1,817	507	907	811	31	46	19
Chemical	68,911	61,766	679	5,350	1,115	65,707	59,300	485	4,989	932	3,204	2,466	194	361	183
Civil	159,709	141,230	2,210	12,998	3,270	157,036	138,955	2,127	12,739	3,215	2,673	2,276	83	259	55
Electrical / electronic	262,300	235,767	6,044	16,620	3,869	258,336	232,649	5,860	16,046	3,781	3,963	3,118	184	574	86
Industrial	74,698	70,589	1,137	2,321	650	72,382	68,532	1,001	2,238	611	2,316	2,057	137	84	39
Materials	25,535	23,202	184	1,863	286	24,765	22,518	164	1,808	276	770	684	21	56	9
Mechanical	228,891	211,077	2,405	11,703	3,706	225,044	207,751	2,180	11,424	3,689	3,847	3,326	225	279	17
Mining	8,303	8,002	28	109	163	8,083	7,782	28	109	163	219	219	-	-	-
Nuclear	10,016	9,064	82	730	141	9,844	8,901	82	720	141	173	164	-	9	-
Petroleum	15,038	14,063	149	302	524	14,647	13,701	139	283	524	391	362	10	19	-
Other	242,923	224,512	5,360	8,881	4,168	234,232	217,188	4,689	8,355	4,000	8,691	7,324	671	526	168
Life scientists	**149,477**	**139,410**	**2,702**	**5,516**	**1,849**	**123,203**	**116,340**	**1,886**	**3,715**	**1,282**	**26,274**	**23,070**	**816**	**1,801**	**567**
Biologists	92,906	87,267	2,210	2,526	903	75,265	71,798	1,492	1,601	374	17,641	15,469	718	925	529
Biochemists	10,476	9,292	130	968	86	8,171	7,264	99	732	76	2,305	2,029	31	236	10
Agricultural scientists	30,263	28,284	238	1,176	585	28,102	26,427	216	894	585	2,161	1,857	22	282	-
Medical scientists	15,831	14,566	125	846	295	11,664	10,851	79	487	247	4,167	3,715	45	359	48
Psychologists	**90,225**	**85,468**	**2,914**	**948**	**895**	**56,928**	**54,249**	**1,442**	**508**	**729**	**33,297**	**31,219**	**1,472**	**440**	**166**
Social scientists	**128,615**	**116,586**	**5,854**	**4,272**	**1,903**	**98,275**	**89,939**	**3,846**	**3,313**	**1,177**	**30,339**	**26,647**	**2,008**	**959**	**726**
Economists	51,831	48,225	750	2,373	484	46,126	43,253	577	1,841	455	5,705	4,972	173	532	29
Sociologists / anthroplgsts.	25,139	22,421	1,651	425	642	15,787	13,666	1,380	246	496	9,353	8,755	271	179	147
Other social scientists	51,644	45,940	3,453	1,474	777	36,363	33,020	1,889	1,227	227	15,282	12,920	1,564	248	550

NOTE: Detail may not add to total due to rounding.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-5. Number of Scientists and Engineers by Field, Sex, Race, and Employment Status: 1982

Field, Sex, and Race	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Total, all fields														
Sex	1,911,917	1,759,344	1,588,586	170,759	1,698,640	1,534,711	163,930	60,704	53,875	6,829	35,260	117,313	86,327	30,985
Male	1,729,032	1,598,067	1,449,500	148,567	1,559,108	1,415,196	143,913	38,958	34,304	4,655	28,863	102,101	83,528	18,573
Female	182,885	161,277	139,086	22,191	139,532	119,514	20,017	21,746	19,572	2,174	6,397	15,211	2,799	12,412
Race	1,911,917	1,759,344	1,588,586	170,759	1,698,640	1,534,711	163,930	60,704	53,875	6,829	35,260	117,313	86,327	30,985
White	1,740,264	1,606,084	1,448,824	157,140	1,549,867	1,398,749	151,118	56,197	50,175	6,022	30,370	111,831	83,898	27,933
Black	40,877	38,346	32,686	5,660	37,110	31,893	5,217	1,236	793	443	1,514	1,017	496	521
Asian	93,187	86,987	81,532	5,455	84,682	79,503	5,179	2,316	2,029	287	3,027	3,163	1,382	1,780
Other[1]	29,589	27,937	25,444	2,493	26,982	24,566	2,416	955	878	77	350	1,302	550	752
Physical scientists														
Sex	128,535	115,821	108,645	7,176	110,886	104,054	6,833	4,935	4,591	344	2,879	9,834	6,776	3,058
Male	115,036	104,673	97,937	6,737	101,144	94,735	6,410	3,529	3,202	327	2,189	8,174	6,288	1,886
Female	13,499	11,148	10,708	439	9,742	9,319	423	1,406	1,389	17	690	1,661	488	1,172
Race	128,535	115,821	108,645	7,176	110,886	104,054	6,833	4,935	4,591	344	2,879	9,834	6,776	3,058
White	115,314	104,202	97,945	6,257	99,585	93,672	5,913	4,617	4,273	344	2,351	8,761	6,228	2,533
Black	2,981	2,595	2,518	77	2,595	2,518	77	–	–	–	41	345	218	127
Asian	8,009	7,129	6,508	621	6,918	6,297	621	211	211	–	486	392	229	163
Other[1]	2,232	1,895	1,674	221	1,788	1,566	221	107	107	–	–	337	101	235
Chemists														
Sex	87,544	78,028	72,470	5,558	75,030	69,715	5,316	2,998	2,756	242	2,145	7,371	5,116	2,256
Male	76,544	68,873	63,730	5,143	66,882	61,965	4,917	1,991	1,765	226	1,595	6,076	4,627	1,449
Female	11,000	9,155	8,740	415	8,148	7,750	399	1,007	991	17	550	1,295	488	807
Race	87,544	78,028	72,470	5,558	75,030	69,715	5,316	2,998	2,756	242	2,145	7,371	5,116	2,256
White	77,258	69,177	64,346	4,831	66,418	61,829	4,589	2,759	2,517	242	1,665	6,416	4,568	1,848
Black	2,493	2,136	2,068	68	2,136	2,068	68	–	–	–	22	336	218	118
Asian	6,545	5,695	5,094	601	5,505	4,904	601	190	190	–	458	392	229	163
Other[1]	1,249	1,021	963	58	972	914	58	49	49	–	–	228	101	127
Physicists / astronomers														
Sex	28,106	25,802	24,822	980	24,178	23,300	879	1,623	1,522	101	374	1,930	1,155	776
Male	26,259	24,410	23,445	965	23,108	22,245	864	1,302	1,201	101	257	1,592	1,155	437
Female	1,847	1,392	1,377	15	1,070	1,055	15	322	322	–	117	338	–	338
Race	28,106	25,802	24,822	980	24,178	23,300	879	1,623	1,522	101	374	1,930	1,155	776
White	26,036	23,860	22,911	949	22,316	21,468	848	1,544	1,443	101	364	1,812	1,155	657
Black	349	330	320	9	330	320	9	–	–	–	10	9	–	9
Asian	1,081	1,081	1,071	10	1,060	1,050	10	21	21	–	–	–	–	–
Other[1]	640	531	520	11	473	461	11	58	58	–	–	109	–	109
Other physical scientists														
Sex	12,884	11,991	11,353	638	11,677	11,039	638	314	314	–	360	533	506	27
Male	12,233	11,390	10,761	629	11,154	10,525	629	237	237	–	337	506	506	–
Female	652	601	592	9	524	514	9	77	77	–	23	27	–	27
Race	12,884	11,991	11,353	638	11,677	11,039	638	314	314	–	360	533	506	27
White	12,020	11,165	10,688	477	10,852	10,375	477	314	314	–	321	533	506	27
Black	130	130	130	–	130	130	–	–	–	–	9	–	–	–
Asian	363	353	343	9	353	343	9	–	–	–	30	–	–	–
Other[1]	343	343	191	151	343	191	151	–	–	–	–	–	–	–
Mathematical scientists														
Sex	48,425	43,944	37,049	6,895	40,961	34,307	6,654	2,983	2,741	241	924	3,558	1,808	1,749
Male	38,800	35,893	30,031	5,862	33,978	28,227	5,751	1,914	1,804	111	573	2,335	1,370	965
Female	9,625	8,051	7,018	1,033	6,983	6,080	903	1,069	938	131	351	1,223	438	785
Race	48,425	43,944	37,049	6,895	40,961	34,307	6,654	2,983	2,741	241	924	3,558	1,808	1,749
White	43,883	39,450	33,001	6,449	36,850	30,632	6,217	2,600	2,368	232	848	3,365	1,770	1,595
Black	1,475	1,404	1,360	44	1,365	1,321	44	38	38	–	45	26	26	–
Asian	2,517	2,333	2,122	211	2,033	1,831	202	300	290	9	19	166	12	155
Other[1]	770	758	567	191	713	522	191	45	45	–	12	–	–	–
Mathematicians														
Sex	40,777	36,945	30,808	6,136	34,388	28,493	5,895	2,557	2,315	241	770	3,062	1,606	1,456
Male	33,363	30,900	25,447	5,453	29,063	23,721	5,343	1,837	1,726	111	428	2,034	1,198	836
Female	7,414	6,044	5,361	683	5,324	4,772	552	720	589	131	342	1,028	408	620
Race	40,777	36,945	30,808	6,136	34,388	28,493	5,895	2,557	2,315	241	770	3,062	1,606	1,456
White	37,003	33,282	27,379	5,903	31,062	25,391	5,671	2,220	1,988	232	704	3,018	1,580	1,438
Black	1,273	1,202	1,158	44	1,179	1,134	44	23	23	–	45	26	26	–
Asian	1,920	1,892	1,733	159	1,614	1,464	150	278	269	9	9	18	–	18
Other[1]	580	568	539	29	533	504	29	36	36	–	12	–	–	–
Statisticians														
Sex	7,649	7,000	6,241	759	6,573	5,814	759	426	426	–	154	495	202	293
Male	5,437	4,993	4,584	409	4,915	4,506	409	77	77	–	144	300	172	128
Female	2,211	2,007	1,657	350	1,658	1,308	350	349	349	–	9	195	30	165
Race	7,649	7,000	6,241	759	6,573	5,814	759	426	426	–	154	495	202	293
White	6,660	6,168	5,622	546	5,788	5,242	546	380	380	–	144	347	190	157
Black	202	202	202	–	187	187	–	15	15	–	–	–	–	–
Asian	597	440	389	52	418	367	52	22	22	–	9	148	12	136
Other[1]	189	189	28	161	180	19	161	9	9	–	–	–	–	–
Computer specialists														
Sex	174,033	168,576	122,669	45,908	164,970	119,590	45,379	3,606	3,079	529	1,479	3,975	655	3,320
Male	134,670	132,139	95,834	36,305	131,162	95,136	36,023	976	696	282	1,118	1,412	655	757
Female	39,363	36,438	26,835	9,603	33,808	24,452	9,356	2,630	2,383	247	361	2,563	–	2,563
Race	174,033	168,576	122,669	45,908	164,970	119,590	45,379	3,606	3,079	529	1,479	3,975	655	3,320
White	157,203	152,161	109,774	42,387	148,690	106,822	41,868	3,471	2,952	519	1,280	3,762	645	3,117
Black	5,687	5,604	3,836	1,768	5,589	3,820	1,769	15	15	–	34	48	10	38
Asian	8,122	7,944	6,660	1,284	7,862	6,588	1,274	82	72	10	145	32	–	32
Other[1]	3,022	2,869	2,400	469	2,829	2,360	469	40	40	–	20	133	–	133

See Footnotes at end of Table

Table B-5. Number of Scientists and Engineers by Field, Sex, Race, and Employment Status: 1982—continued

Field, Sex, and Race	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Environmental scientists														
Sex	46,056	42,407	40,960	1,447	40,628	39,246	1,382	1,779	1,714	65	731	2,918	2,015	902
Male	42,712	39,341	37,920	1,421	37,917	36,550	1,367	1,424	1,370	54	640	2,731	2,015	716
Female	3,344	3,066	3,040	26	2,711	2,696	15	355	344	11	92	186	-	186
Race	46,056	42,407	40,960	1,447	40,628	39,246	1,382	1,779	1,714	65	731	2,918	2,015	902
White	44,158	40,772	39,434	1,338	39,002	37,729	1,273	1,770	1,705	65	712	2,674	1,914	760
Black	325	325	216	109	325	216	109	-	-	-	-	-	-	-
Asian	1,061	900	900	-	891	891	-	9	9	-	19	142	-	142
Other[1]	511	410	410	-	410	410	-	-	-	-	-	101	101	-
Earth scientists														
Sex	38,862	35,850	34,591	1,259	34,181	32,986	1,194	1,670	1,605	65	677	2,355	1,613	741
Male	36,052	33,280	32,046	1,234	31,931	30,752	1,179	1,348	1,294	54	585	2,187	1,613	574
Female	2,830	2,571	2,545	26	2,249	2,234	15	321	311	11	92	168	-	168
Race	38,862	35,850	34,591	1,259	34,181	32,986	1,194	1,670	1,605	65	677	2,355	1,613	741
White	37,580	34,669	33,518	1,150	33,008	31,922	1,085	1,661	1,596	65	657	2,254	1,512	741
Black	248	248	139	109	248	139	109	-	-	-	-	-	-	-
Asian	635	616	616	-	607	607	-	9	9	-	19	-	-	-
Other[1]	419	318	318	-	318	318	-	-	-	-	-	101	101	-
Oceanographers														
Sex	1,704	1,649	1,625	24	1,596	1,571	24	54	54	-	36	18	18	-
Male	1,521	1,466	1,442	24	1,427	1,402	24	40	40	-	36	18	18	-
Female	183	183	183	-	169	169	-	14	14	-	-	-	-	-
Race	1,704	1,649	1,625	24	1,596	1,571	24	54	54	-	36	18	18	-
White	1,590	1,535	1,511	24	1,482	1,457	24	54	54	-	36	18	18	-
Black	33	33	33	-	33	33	-	-	-	-	-	-	-	-
Asian	9	9	9	-	9	9	-	-	-	-	-	-	-	-
Other[1]	73	73	73	-	73	73	-	-	-	-	-	-	-	-
Atmospheric scientists														
Sex	5,470	4,907	4,744	163	4,852	4,689	163	56	56	-	18	545	384	161
Male	5,139	4,595	4,432	163	4,559	4,396	163	36	36	-	18	526	384	142
Female	331	312	312	-	293	293	-	19	19	-	-	19	-	19
Race	5,470	4,907	4,744	163	4,852	4,689	163	56	56	-	18	545	384	161
White	4,989	4,568	4,405	163	4,513	4,350	163	56	56	-	18	403	384	19
Black	45	45	45	-	45	45	-	-	-	-	-	-	-	-
Asian	417	275	275	-	275	275	-	-	-	-	-	142	-	142
Other[1]	20	20	20	-	20	20	-	-	-	-	-	-	-	-
Engineers														
Sex	1,146,552	1,050,872	998,645	52,226	1,029,953	980,977	48,975	20,919	17,668	3,251	20,074	75,606	62,903	12,703
Male	1,119,398	1,027,135	975,913	51,223	1,007,498	959,357	48,141	19,637	16,556	3,081	18,810	73,452	62,655	10,796
Female	27,154	23,737	22,733	1,004	22,454	21,620	834	1,282	1,112	170	1,264	2,154	249	1,905
Race	1,146,552	1,050,872	998,645	52,226	1,029,953	980,977	48,975	20,919	17,668	3,251	20,074	75,606	62,903	12,703
White	1,046,453	955,972	907,797	48,175	936,259	891,402	45,557	19,013	16,396	2,617	17,249	73,232	61,782	11,450
Black	18,936	17,697	16,827	870	17,217	16,666	552	480	161	319	869	353	131	221
Asian	62,743	59,445	57,340	2,105	58,377	56,519	1,858	1,068	821	247	1,760	1,538	751	787
Other[1]	18,418	17,758	16,681	1,076	17,399	16,391	1,009	358	291	68	176	484	239	245
Aeronautical / Astronautical														
Sex	50,229	46,007	44,731	1,276	44,965	43,689	1,276	1,042	1,042	-	826	3,396	2,907	489
Male	49,321	45,158	43,892	1,266	44,253	42,987	1,266	905	905	-	793	3,371	2,899	472
Female	907	849	839	10	712	702	10	136	136	-	33	25	8	17
Race	50,229	46,007	44,731	1,276	44,965	43,689	1,276	1,042	1,042	-	826	3,396	2,907	489
White	47,180	43,070	41,914	1,156	42,065	40,909	1,156	1,005	1,005	-	725	3,385	2,897	489
Black	660	639	609	30	639	609	30	-	-	-	[illegible]	10	10	-
Asian	1,863	1,790	1,743	47	1,771	1,724	47	19	19	-	73	-	-	-
Other[1]	526	508	464	44	490	446	44	18	18	-	18	-	-	-
Chemical														
Sex	68,911	61,277	57,333	3,944	59,460	55,678	3,783	1,817	1,655	161	1,752	5,882	4,260	1,621
Male	65,707	58,849	55,012	3,837	57,229	53,545	3,684	1,620	1,467	153	1,530	5,329	4,252	1,077
Female	3,204	2,428	2,321	107	2,231	2,133	99	197	189	8	223	553	8	545
Race	68,911	61,277	57,333	3,944	59,460	55,678	3,783	1,817	1,655	161	1,752	5,882	4,260	1,621
White	61,766	54,906	51,344	3,562	53,355	49,944	3,411	1,551	1,400	151	1,435	5,425	4,260	1,165
Black	679	485	454	31	474	454	21	10	-	10	164	31	-	31
Asian	5,350	4,955	4,713	242	4,777	4,534	242	179	179	-	111	284	-	284
Other[1]	1,115	931	822	109	854	745	109	77	77	-	43	141	-	141
Civil														
Sex	159,706	145,955	139,951	6,004	141,960	136,728	5,233	3,995	3,224	771	2,707	11,046	9,598	1,448
Male	157,036	143,655	137,685	5,970	139,724	134,526	5,198	3,931	3,159	771	2,591	10,790	9,573	1,217
Female	2,673	2,301	2,267	34	2,236	2,202	34	65	65	-	116	256	25	231
Race	159,706	145,955	139,951	6,004	141,960	136,728	5,233	3,995	3,224	771	2,707	11,046	9,598	1,448
White	141,230	128,475	123,152	5,323	124,862	120,276	4,586	3,614	2,876	737	2,331	10,424	9,138	1,286
Black	2,210	2,128	2,087	41	2,128	2,087	41	-	-	-	51	31	10	21
Asian	12,998	12,186	11,689	497	11,847	11,350	497	339	339	-	273	539	431	108
Other[1]	3,270	3,166	3,023	143	3,124	3,015	109	42	8	34	52	52	18	34
Electrical / Electronic														
Sex	262,300	245,781	237,523	8,258	241,851	234,120	7,730	3,931	3,403	528	2,980	13,529	10,782	2,747
Male	258,336	242,350	234,234	8,116	238,511	230,924	7,588	3,839	3,311	528	2,725	13,261	10,782	2,479
Female	3,963	3,432	3,289	143	3,339	3,197	143	92	92	-	264	268	-	268
Race	262,300	245,781	237,523	8,258	241,851	234,120	7,730	3,931	3,403	528	2,980	13,529	10,782	2,747
White	235,767	220,133	212,722	7,412	216,529	209,465	7,063	3,604	3,256	348	2,654	12,980	10,477	2,503
Black	6,044	5,714	5,287	426	5,459	5,177	282	256	110	146	126	203	58	145
Asian	16,620	16,109	15,908	201	16,072	15,871	201	37	37	-	182	328	247	81
Other[1]	3,860	3,825	3,606	218	3,791	3,606	185	34	-	34	27	18	-	18

See Footnotes at end of Table

Table B-5. Number of Scientists and Engineers by Field, Sex, Race, and Employment Status: 1982--continued

Field, Sex, and Race	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Industrial														
Sex	74,698	67,937	61,325	6,612	67,192	60,660	6,531	745	665	81	1,602	5,159	4,076	1,083
Male	72,382	65,926	59,362	6,564	65,232	58,746	6,486	694	616	78	1,503	4,953	4,068	885
Female	2,316	2,011	1,963	48	1,960	1,915	45	51	48	3	99	206	8	198
Race	74,698	67,937	61,325	6,612	67,192	60,660	6,531	745	665	81	1,602	5,159	4,076	1,083
White	70,589	64,322	57,800	6,522	63,596	57,145	6,451	726	655	71	1,359	4,908	4,064	844
Black	1,137	1,061	1,020	41	1,051	1,020	31	10	-	10	55	22	12	10
Asian	2,321	1,947	1,916	31	1,938	1,907	31	9	9	-	180	194	-	194
Other[1]	650	607	589	18	607	589	18	-	-	-	9	34	-	34
Materials														
Sex	25,535	22,886	21,143	1,742	21,961	20,500	1,461	925	644	281	548	2,101	1,722	380
Male	24,765	22,321	20,588	1,733	21,396	19,944	1,452	925	644	281	393	2,052	1,722	330
Female	770	565	556	9	565	556	9	-	-	-	155	50	-	50
Race	25,535	22,886	21,143	1,742	21,961	20,500	1,461	925	644	281	548	2,101	1,722	380
White	23,202	20,653	19,346	1,307	19,986	18,712	1,273	668	634	34	484	2,065	1,703	362
Black	184	184	184	-	174	174	-	10	10	-	-	-	-	-
Asian	1,863	1,790	1,355	435	1,543	1,355	188	247	-	247	55	18	18	-
Other[1]	286	258	258	-	258	258	-	-	-	-	9	18	-	18
Mechanical														
Sex	228,891	206,943	195,617	11,326	203,604	192,942	10,662	3,338	2,674	664	4,752	17,196	15,201	1,996
Male	225,044	203,411	192,354	11,057	200,516	189,992	10,524	2,895	2,362	532	4,664	16,969	15,184	1,785
Female	3,847	3,532	3,262	270	3,088	2,950	138	444	312	132	88	228	17	211
Race	228,891	206,943	195,617	11,326	203,604	192,942	10,662	3,338	2,674	664	4,752	17,196	15,201	1,996
White	211,077	190,240	179,812	10,428	187,376	177,270	10,106	2,864	2,342	522	3,906	16,932	15,009	1,923
Black	2,405	2,262	2,079	183	2,099	2,059	41	163	20	142	122	20	20	-
Asian	11,703	10,888	10,491	397	10,727	10,330	397	161	161	-	706	109	36	73
Other[1]	3,706	3,553	3,435	117	3,402	3,284	117	151	151	-	18	135	135	-
Mining														
Sex	8,303	7,334	6,633	702	6,998	6,401	597	336	232	104	154	815	661	153
Male	8,083	7,228	6,526	702	6,900	6,303	597	328	224	104	154	702	549	153
Female	219	107	107	-	98	98	-	8	8	-	-	113	113	-
Race	8,303	7,334	6,633	702	6,998	6,401	597	336	232	104	154	815	661	153
White	8,002	7,033	6,451	582	6,715	6,237	478	318	214	104	154	815	661	153
Black	28	28	18	10	28	18	10	-	-	-	-	-	-	-
Asian	109	109	109	-	109	109	-	-	-	-	-	-	-	-
Other[1]	163	163	55	109	145	36	109	18	18	-	-	-	-	-
Nuclear														
Sex	10,016	9,657	9,548	109	9,403	9,294	109	254	254	-	196	163	136	28
Male	9,844	9,520	9,411	109	9,266	9,157	109	254	254	-	188	136	136	-
Female	173	137	137	-	137	137	-	-	-	-	8	28	-	28
Race	10,016	9,657	9,548	109	9,403	9,294	109	254	254	-	196	163	136	28
White	9,064	8,705	8,596	109	8,469	8,360	109	236	236	-	196	163	136	28
Black	82	82	82	-	82	82	-	-	-	-	-	-	-	-
Asian	730	730	730	-	712	712	-	18	18	-	-	-	-	-
Other[1]	141	141	141	-	141	141	-	-	-	-	-	-	-	-
Petroleum														
Sex	15,036	14,165	13,187	978	13,937	12,993	944	228	194	34	130	743	649	94
Male	14,647	13,782	12,805	978	13,579	12,635	944	203	170	34	130	735	649	86
Female	391	383	383	-	358	358	-	25	25	-	-	8	-	8
Race	15,036	14,165	13,187	978	13,937	12,993	944	228	194	34	130	743	649	94
White	14,063	13,200	12,342	859	12,972	12,147	825	228	194	34	120	743	649	94
Black	149	139	139	-	139	139	-	-	-	-	10	-	-	-
Asian	302	302	302	-	302	302	-	-	-	-	-	-	-	-
Other[1]	524	524	405	119	524	405	119	-	-	-	-	-	-	-
Other														
Sex	242,923	222,930	211,654	11,276	218,622	207,973	10,650	4,307	3,681	626	4,418	15,576	12,912	2,664
Male	234,232	214,937	204,044	10,893	210,892	200,599	10,293	4,045	3,445	600	4,140	15,156	12,842	2,313
Female	8,691	7,993	7,610	383	7,730	7,374	356	263	236	27	278	420	70	351
Race	242,923	222,930	211,654	11,276	218,622	207,973	10,650	4,307	3,681	626	4,418	15,576	12,912	2,664
White	224,512	205,235	194,520	10,715	201,035	190,936	10,099	4,200	3,584	618	3,886	15,391	12,787	2,603
Black	5,360	4,975	4,868	107	4,944	4,847	97	31	20	10	351	35	20	14
Asian	8,883	8,638	8,383	255	8,580	8,324	255	59	59	-	161	64	18	46
Other[1]	4,168	4,082	3,883	199	4,064	3,864	199	18	18	-	-	86	86	-
Life scientists														
Sex	149,477	137,483	121,568	15,915	128,764	[illegible]	14,981	8,719	7,785	934	3,209	8,785	5,484	3,301
Male	123,203	114,432	101,101	13,330	109,323	[illegible]	13,044	5,109	4,822	288	1,940	6,831	5,210	1,621
Female	26,274	23,051	20,466	2,585	19,441	17,504	1,937	3,610	2,962	648	1,269	1,954	274	1,680
Race	149,477	137,483	121,568	15,915	128,764	113,783	14,981	8,719	7,785	934	3,209	8,785	5,484	3,301
White	139,410	128,056	113,060	14,996	119,958	105,886	14,072	8,098	7,174	925	3,060	8,294	5,366	2,929
Black	2,702	2,542	2,446	95	2,264	2,168	95	278	278	-	40	120	-	120
Asian	5,516	5,197	4,629	568	4,916	4,358	559	280	271	9	86	233	9	224
Other[1]	1,849	1,686	1,433	255	1,626	1,371	255	62	62	-	23	136	109	29
Biologists														
Sex	92,906	85,306	77,078	8,228	79,135	71,344	7,791	6,171	5,734	437	2,307	5,293	3,140	2,153
Male	75,265	69,956	63,328	6,628	66,205	59,820	6,385	3,751	3,508	243	1,270	4,039	3,101	938
Female	17,641	15,350	13,750	1,600	12,930	11,524	1,406	2,420	2,226	194	1,037	1,254	39	1,214
Race	92,906	85,306	77,078	8,228	79,135	71,344	7,791	6,171	5,734	437	2,307	5,293	3,140	2,153
White	87,267	79,939	72,089	7,850	74,122	66,709	7,413	5,817	5,380	437	2,246	5,083	3,131	1,952
Black	2,210	2,079	1,993	85	1,823	1,738	85	255	255	-	11	120	-	120
Asian	2,526	2,418	2,380	37	2,359	2,322	37	59	59	-	28	80	9	71
Other[1]	903	871	616	255	831	575	255	40	40	-	23	9	-	9

See Footnotes at end of Table

Table B-5. Number of Scientists and Engineers by Field, Sex, Race, and Employment Status: 1982—continued

Field, Sex, and Race	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Biochemists														
Sex	10,476	9,626	9,272	355	9,312	8,977	335	314	295	20	89	761	421	340
Male	8,171	7,567	7,375	192	7,418	7,227	192	149	149	-	40	564	308	256
Female	2,305	2,059	1,896	163	1,894	1,750	143	166	146	20	49	196	113	84
Race	10,476	9,626	9,272	355	9,312	8,977	335	314	295	20	89	761	421	340
White	9,292	8,519	8,192	327	8,274	7,967	308	245	225	20	31	742	421	321
Black	130	121	121	-	110	110	-	11	11	-	9	-	-	-
Asian	968	910	883	27	852	824	27	58	58	-	49	9	-	9
Other[1]	86	76	76	-	76	76	-	-	-	-	-	10	-	10
Agricultural scientists														
Sex	30,263	27,836	22,596	5,241	26,679	21,491	5,188	1,157	1,105	52	699	1,728	1,405	323
Male	28,102	25,867	20,762	5,104	25,049	19,987	5,061	818	775	43	546	1,689	1,405	285
Female	2,161	1,970	1,833	136	1,630	1,503	127	339	330	9	153	39	-	39
Race	30,263	27,836	22,595	5,241	26,679	21,491	5,188	1,157	1,105	52	699	1,728	1,405	323
White	28,284	26,005	21,250	4,755	25,000	20,288	4,712	1,005	962	43	679	1,600	1,296	304
Black	238	228	218	10	228	218	10	-	-	-	10	-	-	-
Asian	1,176	1,157	681	476	1,005	539	466	152	142	9	9	9	-	9
Other[1]	565	446	446	-	446	446	-	-	-	-	-	119	109	10
Medical scientists														
Sex	15,831	14,715	12,623	2,092	13,638	11,971	1,667	1,076	651	425	114	1,003	518	485
Male	11,664	11,042	9,636	1,407	10,651	9,245	1,407	391	391	-	84	538	396	142
Female	4,167	3,672	2,987	685	2,987	2,726	260	686	261	425	29	465	122	343
Race	15,831	14,715	12,623	2,092	13,638	11,971	1,667	1,076	651	425	114	1,003	518	485
White	14,566	13,594	11,529	2,065	12,562	10,923	1,639	1,032	607	425	104	869	518	351
Black	125	114	114	-	103	103	-	12	12	-	10	-	-	-
Asian	846	712	685	27	700	673	27	12	12	-	-	134	-	134
Other[1]	295	295	295	-	273	273	-	21	21	-	-	-	-	-
Psychologists														
Sex	90,225	84,140	72,069	12,070	74,855	63,315	11,540	9,285	8,755	530	2,190	3,896	950	2,946
Male	56,938	53,934	45,668	8,266	51,005	42,866	8,139	2,930	2,802	128	1,461	1,542	666	876
Female	33,287	30,205	26,401	3,804	23,850	20,449	3,401	6,355	5,953	403	728	2,354	284	2,070
Race	90,225	84,140	72,069	12,070	74,855	63,315	11,540	9,285	8,755	530	2,190	3,896	950	2,946
White	85,478	79,870	68,846	11,024	71,021	60,493	10,528	8,849	8,353	496	1,881	3,728	939	2,789
Black	2,914	2,672	1,686	986	2,541	1,580	961	130	106	25	217	25	11	14
Asian	948	777	735	41	672	630	41	105	105	-	28	143	-	143
Other[1]	885	821	802	19	621	611	9	200	191	9	64	-	-	-
Social scientists														
Sex	128,615	116,100	86,980	29,121	107,624	79,438	28,186	8,477	7,542	935	3,774	8,741	5,736	3,005
Male	98,275	90,519	65,096	25,423	87,081	62,044	25,037	3,438	3,052	386	2,131	5,625	4,670	955
Female	30,339	25,581	21,883	3,698	20,542	17,394	3,149	5,038	4,490	549	1,643	3,116	1,066	2,050
Race	128,615	116,100	86,980	29,121	107,624	79,438	28,186	8,477	7,542	935	3,774	8,741	5,736	3,005
White	116,586	105,581	79,067	26,514	97,801	72,112	25,689	7,779	6,955	825	2,990	8,015	5,255	2,761
Black	5,854	5,507	3,798	1,710	5,213	3,603	1,610	295	195	100	247	100	100	-
Asian	4,272	3,273	2,638	635	3,013	2,389	625	260	250	11	482	517	382	135
Other[1]	1,903	1,739	1,477	262	1,596	1,334	262	142	142	-	56	109	-	109
Economists														
Sex	51,831	46,965	35,416	11,550	45,133	33,862	11,271	1,832	1,553	279	1,117	3,749	3,089	660
Male	46,126	42,339	31,259	11,080	41,358	30,313	11,046	981	946	34	836	2,950	2,698	252
Female	5,705	4,626	4,156	470	3,775	3,550	225	851	607	245	281	798	390	408
Race	51,831	46,965	35,416	11,550	45,133	33,862	11,271	1,832	1,553	279	1,117	3,749	3,089	660
White	48,225	43,853	32,739	11,114	42,184	31,349	10,836	1,669	1,390	279	892	3,481	2,936	545
Black	750	735	700	35	735	700	35	-	-	-	15	-	-	-
Asian	2,373	1,907	1,616	292	1,744	1,452	292	164	164	-	197	268	153	115
Other[1]	484	470	361	109	470	361	109	-	-	-	14	-	-	-
Sociologists / anthropologists														
Sex	25,139	22,993	16,943	6,051	20,365	14,625	5,739	2,629	2,318	311	813	1,333	653	680
Male	15,787	14,646	10,403	4,244	13,614	9,494	4,120	1,032	909	123	230	910	653	258
Female	9,353	8,347	6,540	1,807	6,750	5,131	1,619	1,597	1,409	188	583	423	-	423
Race	25,139	22,993	16,943	6,051	20,365	14,625	5,739	2,629	2,318	311	813	1,333	653	680
White	22,421	20,564	15,383	5,181	18,071	13,102	4,969	2,492	2,281	212	732	1,125	553	572
Black	1,651	1,513	672	841	1,400	659	741	113	13	100	39	100	100	-
Asian	425	425	407	18	401	383	18	24	24	-	-	-	-	-
Other[1]	642	492	481	11	492	481	11	-	-	-	42	109	-	109
Other social scientists														
Sex	51,644	46,142	34,621	11,520	42,126	30,950	11,176	4,016	3,671	345	1,844	3,659	1,994	1,665
Male	36,383	33,534	23,435	10,099	32,109	22,237	9,871	1,425	1,197	228	1,065	1,764	1,318	446
Female	15,262	12,608	11,187	1,421	10,018	8,713	1,304	2,590	2,474	117	779	1,895	676	1,219
Race	51,644	46,142	34,621	11,520	42,126	30,950	11,176	4,016	3,671	345	1,844	3,659	1,994	1,665
White	45,940	41,164	30,945	10,219	37,546	27,661	9,884	3,618	3,284	334	1,366	3,410	1,765	1,645
Black	3,453	3,260	2,426	834	3,078	2,243	834	182	182	-	193	-	-	-
Asian	1,474	941	615	325	868	553	315	73	62	11	285	249	229	20
Other[1]	777	777	635	142	635	492	142	142	142	-	-	-	-	-

NOTE: Detail may not add to total due to rounding.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-6. Number of Scientists and Engineers by Field, Age, and Employment Status: 1982

Field and Age	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Total, all fields	1,911,917	1,759,344	1,588,586	170,759	1,698,640	1,534,711	163,930	60,704	53,875	6,829	35,260	117,313	86,327	30,986
Under 30	231,954	214,915	195,281	19,636	200,439	182,012	18,426	14,477	13,268	1,208	6,565	10,473	-	10,473
30-34	306,771	294,688	265,332	29,357	284,976	256,356	28,620	9,712	8,975	737	5,196	6,887	34	6,853
35-39	313,302	304,717	270,663	34,055	297,508	264,453	33,055	7,209	6,202	1,000	4,728	3,857	68	3,789
40-44	245,850	239,749	214,214	25,534	235,896	210,659	25,236	3,853	3,555	297	4,444	1,456	40	1,416
45-49	201,102	196,659	179,637	17,022	194,768	178,179	16,589	1,891	1,458	433	2,905	1,539	247	1,292
50-54	200,919	195,148	177,389	17,758	192,366	174,823	17,542	2,782	2,566	216	3,241	2,530	1,301	1,229
55-59	190,331	175,949	162,086	13,883	171,028	157,689	13,358	4,921	4,397	525	3,490	10,892	8,492	2,400
60-64	123,342	95,122	86,351	8,771	89,630	81,751	7,879	5,492	4,600	892	2,490	25,730	23,321	2,408
65-69	60,018	24,223	21,780	2,443	19,007	17,159	1,848	5,216	4,621	594	1,202	34,593	33,759	835
70 and over	35,439	15,120	13,279	1,840	10,077	9,089	988	5,043	4,190	853	986	19,353	19,067	287
Not reported	3,089	3,055	2,593	462	2,948	2,559	388	108	34	74	34	-	-	-
Physical scientists	128,534	115,821	108,645	7,176	110,886	104,054	6,832	4,935	4,591	344	2,879	9,834	6,776	3,058
Under 30	12,548	10,351	9,760	591	8,843	8,252	591	1,508	1,508	-	569	1,628	-	1,628
30-34	15,853	14,599	13,345	1,254	14,051	12,796	1,254	548	548	-	558	696	-	696
35-39	20,939	20,375	18,905	1,470	19,785	18,374	1,412	590	531	58	513	52	-	52
40-44	18,671	18,314	17,182	1,132	18,099	17,075	1,024	216	107	108	231	126	-	126
45-49	14,174	13,910	13,410	500	13,843	13,360	483	67	50	17	206	58	-	58
50-54	15,175	14,832	14,444	387	14,556	14,168	387	276	276	-	141	202	202	-
55-59	13,506	12,556	11,543	1,013	11,926	11,015	912	630	528	101	193	759	658	101
60-64	10,053	8,098	7,269	828	7,882	7,112	770	216	157	58	134	1,821	1,549	272
65-69	3,903	1,481	1,481	-	1,095	1,095	-	386	386	-	-	2,422	2,297	126
70 and over	3,570	1,165	1,165	-	665	665	-	499	499	-	335	2,070	2,070	-
Not reported	141	141	141	-	141	141	-	-	-	-	-	-	-	-
Chemists	87,544	78,028	72,470	5,558	75,030	69,715	5,316	2,998	2,756	242	2,146	7,371	5,116	2,256
Under 30	9,399	7,763	7,376	387	7,028	6,640	387	735	735	-	510	1,126	-	1,126
30-34	9,708	8,914	8,232	681	8,705	8,024	681	209	209	-	340	454	-	454
35-39	13,785	13,396	12,034	1,362	13,020	11,717	1,303	376	317	58	336	52	-	52
40-44	12,484	12,128	11,063	1,065	11,924	10,968	956	204	95	108	231	126	-	126
45-49	8,957	8,762	8,432	330	8,696	8,382	313	67	50	17	195	-	-	-
50-54	10,483	10,277	10,008	269	10,001	9,732	269	276	276	-	104	101	101	-
55-59	9,598	8,756	7,953	803	8,399	7,596	803	357	357	-	184	658	557	101
60-64	7,298	6,050	5,389	661	5,963	5,361	602	87	29	58	17	1,231	959	272
65-69	3,129	1,069	1,069	-	717	717	-	352	352	-	-	2,060	1,935	126
70 and over	2,563	772	772	-	437	437	-	335	335	-	227	1,564	1,564	-
Not reported	141	141	141	-	141	141	-	-	-	-	-	-	-	-
Physicists / astronomers	28,106	25,802	24,822	980	24,179	23,300	879	1,623	1,522	101	374	1,930	1,155	775
Under 30	2,035	1,485	1,282	203	800	597	203	684	684	-	58	491	-	491
30-34	4,077	3,743	3,455	288	3,483	3,195	288	260	260	-	109	226	-	226
35-39	5,029	4,985	4,985	-	4,783	4,783	-	202	202	-	44	-	-	-
40-44	4,368	4,368	4,368	-	4,356	4,356	-	12	12	-	-	-	-	-
45-49	3,828	3,757	3,597	160	3,757	3,597	160	-	-	-	12	58	-	58
50-54	3,346	3,211	3,093	118	3,211	3,093	118	-	-	-	34	101	101	-
55-59	2,483	2,483	2,273	210	2,265	2,156	109	218	117	101	-	-	-	-
60-64	1,835	1,330	1,330	-	1,213	1,213	-	117	117	-	117	388	388	-
65-69	571	310	310	-	310	310	-	-	-	-	-	261	261	-
70 and over	535	130	130	-	-	-	-	130	130	-	-	405	405	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other physical scientists	12,884	11,991	11,353	638	11,677	11,039	638	314	314	-	360	533	506	27
Under 30	1,114	1,103	1,103	-	1,015	1,015	-	88	88	-	-	11	-	11
30-34	2,068	1,942	1,657	285	1,862	1,577	285	80	80	-	109	17	-	17
35-39	2,126	1,995	1,886	109	1,983	1,874	109	12	12	-	131	-	-	-
40-44	1,819	1,819	1,751	68	1,819	1,751	68	-	-	-	-	-	-	-
45-49	1,390	1,390	1,381	9	1,390	1,381	9	-	-	-	-	-	-	-
50-54	1,346	1,343	1,343	-	1,343	1,343	-	-	-	-	3	-	-	-
55-59	1,427	1,317	1,317	-	1,263	1,263	-	54	54	-	9	101	101	-
60-64	920	718	551	167	706	539	167	12	12	-	-	202	202	-
65-69	203	102	102	-	68	68	-	34	34	-	-	101	101	-
70 and over	472	262	262	-	228	228	-	34	34	-	109	101	101	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mathematical scientists	48,425	43,944	37,049	6,895	40,961	34,307	6,654	2,983	2,741	241	924	3,558	1,809	1,749
Under 30	4,224	3,626	3,333	294	2,802	2,518	284	824	815	9	344	254	-	254
30-34	7,813	6,903	5,690	1,214	6,000	4,899	1,101	903	791	113	56	854	-	854
35-39	10,803	10,162	8,344	1,818	9,757	7,939	1,818	405	405	-	280	361	-	361
40-44	8,354	8,135	6,617	1,518	7,793	6,293	1,500	343	325	18	200	18	-	18
45-49	4,805	4,756	4,519	237	4,684	4,447	237	72	72	-	-	49	15	34
50-54	4,455	4,344	3,968	375	4,305	3,929	375	39	39	-	10	101	101	-
55-59	4,016	3,731	2,951	780	3,731	2,951	780	-	-	-	-	285	267	18
60-64	1,492	1,327	986	340	1,285	944	340	42	42	-	-	165	165	-
65-69	1,679	812	594	218	558	340	218	254	254	-	-	868	759	109
70 and over	739	137	36	101	36	36	-	101	-	101	-	602	501	101
Not reported	46	12	12	-	12	12	-	-	-	-	34	-	-	-
Mathematicians	40,777	36,945	30,806	6,138	34,388	28,493	5,895	2,557	2,315	241	770	3,062	1,606	1,456
Under 30	2,897	2,542	2,436	106	1,784	1,688	97	758	748	9	235	119	-	119
30-34	5,922	5,179	4,244	935	4,322	3,499	823	857	745	113	46	696	-	696
35-39	9,191	8,568	6,945	1,623	8,264	6,641	1,623	304	304	-	262	361	-	361
40-44	7,119	6,918	5,427	1,491	6,711	5,238	1,473	208	189	18	182	18	-	18
45-49	4,330	4,282	4,088	194	4,210	4,016	194	72	72	-	-	49	15	34
50-54	4,263	4,151	3,785	366	4,130	3,764	366	21	21	-	10	101	101	-
55-59	3,683	3,415	2,635	780	3,415	2,635	780	-	-	-	-	267	250	18
60-64	1,179	1,127	805	322	1,109	787	322	18	18	-	-	52	52	-
65-69	1,480	649	431	218	431	213	218	218	218	-	-	832	723	109
70 and over	668	101	-	101	-	-	-	101	-	101	-	567	465	101
Not reported	46	12	12	-	12	12	-	-	-	-	34	-	-	-

See Footnotes at end of Table

Table B-6. Number of Scientists and Engineers by Field, Age, and Employment Status: 1982 —continued

Field and Age	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Statisticians	7,649	7,000	6,241	759	6,573	5,814	759	426	426	-	154	496	203	293
Under 30	1,328	1,084	897	187	1,018	830	187	66	66	-	109	135	-	135
30-34	1,892	1,724	1,446	279	1,678	1,400	279	46	46	-	9	159	-	159
35-39	1,611	1,594	1,399	195	1,493	1,298	195	101	101	-	18	-	-	-
40-44	1,235	1,217	1,190	27	1,082	1,055	27	135	135	-	18	-	-	-
45-49	474	474	431	43	474	431	43	-	-	-	-	-	-	-
50-54	192	192	183	9	175	165	9	18	18	-	-	-	-	-
55-59	333	315	315	-	315	315	-	-	-	-	-	18	18	-
60-64	313	200	182	18	176	157	18	24	24	-	-	113	113	-
65-69	199	163	163	-	127	127	-	36	36	-	-	36	36	-
70 and over	71	36	36	-	36	36	-	-	-	-	-	36	36	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Computer specialists	174,033	168,578	122,669	45,909	164,972	119,592	45,379	3,606	3,077	529	1,479	3,975	655	3,320
Under 30	34,184	32,957	25,080	7,877	32,047	24,321	7,726	910	759	151	84	1,143	-	1,143
30-34	46,417	45,184	33,638	11,547	44,152	32,701	11,451	1,032	937	96	283	950	-	950
35-39	40,967	40,013	27,902	12,111	38,979	26,986	11,994	1,034	916	117	379	575	-	575
40-44	22,449	21,438	15,299	6,138	21,188	15,050	6,138	248	248	-	453	561	-	561
45-49	14,006	13,733	10,629	3,104	13,645	10,541	3,104	86	86	-	217	56	36	20
50-54	8,769	8,633	5,255	3,378	8,481	5,212	3,269	152	43	109	64	72	-	72
55-59	4,437	4,338	3,104	1,232	4,248	3,051	1,196	90	54	36	-	101	101	-
60-64	1,526	1,384	1,047	338	1,351	1,013	338	34	34	-	-	142	142	-
65-69	557	181	145	36	181	145	36	-	-	-	-	376	376	-
70 and over	201	201	201	-	201	201	-	-	-	-	-	-	-	-
Not reported	519	519	371	148	499	371	129	20	-	20	-	-	-	-
Environmental scientists	46,056	42,407	40,960	1,447	40,628	39,246	1,382	1,779	1,714	65	731	2,918	2,016	902
Under 30	6,979	6,226	6,155	71	5,674	5,614	60	552	542	11	274	479	-	479
30-34	8,237	7,885	7,571	314	7,658	7,344	314	227	227	-	97	254	-	254
35-39	6,175	6,079	5,806	272	6,021	5,749	272	57	57	-	73	24	-	24
40-44	3,889	3,786	3,768	18	3,713	3,696	18	73	73	-	103	-	-	-
45-49	5,072	5,036	4,800	236	4,989	4,753	236	47	47	-	36	-	-	-
50-54	5,223	5,187	4,993	193	5,006	4,812	193	181	181	-	18	18	18	-
55-59	5,649	5,059	4,932	127	4,838	4,730	109	221	202	18	40	550	405	145
60-64	2,625	2,176	2,049	127	1,984	1,875	109	192	174	18	54	394	394	-
65-69	1,373	570	551	18	449	431	18	119	119	-	18	785	785	-
70 and over	821	390	320	70	282	230	52	109	91	18	18	412	412	-
Not reported	14	14	14	-	14	14	-	-	-	-	-	-	-	-
Earth scientists	38,882	35,850	34,591	1,259	34,181	32,987	1,194	1,669	1,603	65	677	2,354	1,613	741
Under 30	6,151	5,453	5,382	71	4,943	4,883	60	510	499	11	238	460	-	460
30-34	6,718	6,527	6,273	254	6,317	6,063	254	210	210	-	79	112	-	112
35-39	4,807	4,711	4,566	145	4,664	4,519	145	47	47	-	73	24	-	24
40-44	3,040	2,937	2,919	18	2,868	2,850	18	69	69	-	103	-	-	-
45-49	4,319	4,283	4,047	236	4,254	4,018	236	29	29	-	36	-	-	-
50-54	4,816	4,798	4,605	193	4,617	4,423	193	181	181	-	18	-	-	-
55-59	4,908	4,354	4,227	127	4,134	4,025	109	221	202	18	40	514	369	145
60-64	2,197	1,867	1,740	127	1,675	1,566	109	192	174	18	54	275	275	-
65-69	1,090	515	497	18	413	395	18	101	101	-	18	557	557	-
70 and over	821	390	320	70	282	230	52	109	91	18	18	412	412	-
Not reported	14	14	14	-	14	14	-	-	-	-	-	-	-	-
Oceanographers	1,704	1,649	1,625	24	1,595	1,571	24	54	54	-	36	18	18	-
Under 30	157	121	121	-	81	81	-	40	40	-	36	-	-	-
30-34	313	313	289	24	313	289	24	-	-	-	-	-	-	-
35-39	513	513	513	-	502	502	-	11	11	-	-	-	-	-
40-44	167	167	167	-	163	163	-	4	4	-	-	-	-	-
45-49	206	206	206	-	206	206	-	-	-	-	-	-	-	-
50-54	136	136	136	-	136	136	-	-	-	-	-	-	-	-
55-59	175	157	157	-	157	157	-	-	-	-	-	18	18	-
60-64	36	36	36	-	36	36	-	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atmospheric scientists	5,470	4,907	4,744	163	4,852	4,689	163	56	56	-	18	546	384	161
Under 30	671	652	652	-	649	649	-	3	3	-	-	19	-	19
30-34	1,205	1,045	1,009	36	1,028	992	36	17	17	-	18	142	-	142
35-39	855	855	728	127	855	728	127	-	-	-	-	-	-	-
40-44	682	682	682	-	682	682	-	-	-	-	-	-	-	-
45-49	547	547	547	-	529	529	-	18	18	-	-	-	-	-
50-54	270	252	252	-	252	252	-	-	-	-	-	18	18	-
55-59	566	548	548	-	548	548	-	-	-	-	-	18	18	-
60-64	392	272	272	-	272	272	-	-	-	-	-	119	119	-
65-69	282	54	54	-	36	36	-	18	18	-	-	228	228	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineers	1,146,552	1,050,872	968,646	82,226	1,029,953	980,977	48,975	20,919	17,568	3,351	20,074	75,606	62,903	12,703
Under 30	134,175	125,785	121,187	4,597	122,024	118,075	3,950	3,761	3,113	648	3,761	4,629	-	4,629
30-34	161,921	158,334	152,608	5,726	157,274	151,652	5,621	1,060	955	105	2,016	1,572	34	1,538
35-39	164,403	161,552	154,071	7,482	160,320	153,024	7,297	1,232	1,047	185	1,987	863	68	795
40-44	139,427	137,022	128,669	8,353	136,405	128,085	8,319	617	583	34	2,095	311	18	292
45-49	128,411	125,853	118,120	7,734	125,474	117,775	7,700	379	345	34	1,749	806	-	806
50-54	128,706	125,163	119,704	5,459	124,281	118,822	5,459	882	882	-	1,991	1,555	861	694
55-59	133,480	123,385	117,290	6,095	120,334	114,596	5,738	3,051	[illegible]	357	2,781	7,314	5,831	1,483
60-64	88,770	66,546	62,360	4,186	62,919	59,518	3,402	3,627	[illegible]	785	2,181	20,043	18,103	1,940
65-69	41,724	15,400	13,947	1,453	11,988	11,098	890	3,412	[illegible]	583	945	25,378	24,923	454
70 and over	23,919	10,219	9,112	1,107	7,354	6,788	566	2,865	2,324	541	567	13,133	13,065	68
Not reported	1,613	1,613	1,579	34	1,579	1,545	34	34	34	-	-	-	-	-

See Footnotes at end of Table

Table B-6. Number of Scientists and Engineers by Field, Age, and Employment Status: 1982 —continued

Field and Age	Total	Employed									Unemployed seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Aeronautical / Astronautical	**50,229**	**46,007**	**44,731**	**1,276**	**44,965**	**43,689**	**1,276**	**1,042**	**1,042**	-	**826**	**3,396**	**2,907**	**489**
Under 30	3,701	3,573	3,519	54	3,181	3,127	54	392	392	-	27	101	-	101
30-34	3,972	3,803	3,759	44	3,803	3,759	44	-	-	-	34	135	-	135
35-39	5,169	5,136	4,925	210	5,135	4,925	210	-	-	-	34	-	-	-
40-44	5,102	4,963	4,925	38	4,963	4,925	38	-	-	-	131	8	-	8
45-49	7,911	7,809	7,648	161	7,801	7,640	161	8	8	-	102	-	-	-
50-54	7,952	7,772	7,494	278	7,772	7,494	278	-	-	-	45	135	-	135
55-59	8,683	7,796	7,406	389	7,544	7,154	389	252	252	-	255	633	523	109
60-64	5,430	4,239	4,137	102	4,052	3,950	102	187	187	-	131	1,059	1,059	-
65-69	1,633	579	579	-	545	545	-	34	34	-	34	1,020	1,020	-
70 and over	608	271	271	-	102	102	-	169	169	-	34	304	304	-
Not reported	68	68	68	-	68	68	-	-	-	-	-	-	-	-
Chemical	**68,911**	**61,277**	**57,333**	**3,944**	**59,460**	**55,678**	**3,783**	**1,817**	**1,656**	**161**	**1,752**	**5,882**	**4,260**	**1,621**
Under 30	10,875	9,647	9,451	196	9,214	9,062	152	433	389	44	322	906	-	906
30-34	9,211	8,543	8,326	217	8,414	8,205	209	129	121	8	291	377	-	377
35-39	9,110	8,881	8,288	592	8,827	8,235	592	53	53	-	169	60	-	60
40-44	8,632	8,560	7,598	962	8,560	7,598	962	-	-	-	72	-	-	-
45-49	6,609	6,331	5,906	424	6,331	5,906	424	-	-	-	211	68	-	68
50-54	6,539	6,527	6,155	372	6,301	5,929	372	226	226	-	12	-	-	-
55-59	6,956	6,565	5,941	624	6,245	5,622	624	319	319	-	153	239	205	34
60-64	6,100	4,810	4,484	326	4,525	4,198	326	285	285	-	136	1,154	1,086	68
65-69	3,451	846	737	109	652	543	109	194	194	-	211	2,395	2,286	109
70 and over	1,360	500	380	121	324	312	12	177	68	109	177	683	683	-
Not reported	68	68	68	-	68	68	-	-	-	-	-	-	-	-
Civil	**159,708**	**145,955**	**139,951**	**6,004**	**141,960**	**136,727**	**5,233**	**3,995**	**3,224**	**771**	**2,707**	**11,046**	**9,598**	**1,448**
Under 30	17,896	16,573	16,158	415	16,265	15,868	397	308	290	18	610	714	-	714
30-34	24,097	23,697	22,899	798	23,547	22,749	798	149	149	-	207	193	-	193
35-39	22,958	22,684	21,940	744	22,258	21,621	636	426	319	109	206	68	-	68
40-44	18,230	17,895	16,787	1,108	17,741	16,633	1,108	154	154	-	335	-	-	-
45-49	18,235	17,782	17,032	750	17,714	16,998	716	68	34	34	245	207	-	207
50-54	16,636	16,036	15,503	533	15,969	15,435	533	68	68	-	334	266	203	63
55-59	18,652	17,062	16,681	381	16,407	16,026	381	655	655	-	463	1,127	1,026	101
60-64	11,081	8,559	8,092	467	8,003	7,766	236	556	326	230	273	2,249	2,147	102
65-69	6,378	2,908	2,663	244	1,976	1,942	34	931	721	211	-	3,470	3,470	-
70 and over	5,348	2,564	2,000	564	1,886	1,492	394	677	508	170	34	2,751	2,751	-
Not reported	196	196	196	-	196	196	-	-	-	-	-	-	-	-
Electrical / Electronic	**262,309**	**245,791**	**237,533**	**8,258**	**241,860**	**234,130**	**7,730**	**3,931**	**3,403**	**528**	**2,990**	**13,529**	**10,782**	**2,747**
Under 30	32,695	31,129	30,403	726	30,209	29,626	583	920	777	144	321	1,245	-	1,245
30-34	38,147	37,684	36,509	1,175	37,420	36,280	1,141	264	230	34	401	63	-	63
35-39	40,200	39,769	38,294	1,475	39,550	38,143	1,408	219	151	68	329	102	-	102
40-44	34,486	33,930	32,693	1,237	33,788	32,551	1,237	143	143	-	325	231	-	231
45-49	30,122	29,687	28,884	803	29,645	28,842	803	42	42	-	300	135	-	135
50-54	32,525	31,585	30,441	1,144	31,517	30,373	1,144	68	68	-	517	424	244	179
55-59	27,915	26,426	25,613	813	26,011	25,234	777	415	379	36	380	1,109	879	230
60-64	15,342	11,276	10,602	675	10,714	10,252	462	562	349	213	365	3,701	3,315	387
65-69	6,243	2,194	1,983	211	1,513	1,336	177	681	647	34	-	4,050	3,907	143
70 and over	4,258	1,735	1,735	-	1,118	1,118	-	617	617	-	52	2,471	2,437	34
Not reported	366	366	366	-	366	366	-	-	-	-	-	-	-	-
Industrial	**74,699**	**67,937**	**61,325**	**6,612**	**67,192**	**60,660**	**6,531**	**745**	**666**	**81**	**1,603**	**5,159**	**4,076**	**1,083**
Under 30	8,699	8,104	7,362	741	8,067	7,329	738	37	34	3	361	234	-	234
30-34	11,001	10,748	10,323	425	10,688	10,263	425	60	60	-	86	167	-	167
35-39	12,213	11,957	10,883	1,074	11,937	10,864	1,074	20	20	-	248	8	-	8
40-44	9,639	9,553	8,483	1,070	9,519	8,449	1,070	34	34	-	86	-	-	-
45-49	9,139	8,757	7,114	1,643	8,648	7,005	1,643	109	109	-	266	117	-	117
50-54	8,025	7,484	6,845	639	7,450	6,811	639	34	34	-	203	337	202	135
55-59	7,310	6,625	6,104	522	6,490	5,969	522	135	135	-	149	535	350	185
60-64	4,999	3,613	3,260	353	3,408	3,055	353	206	206	-	102	1,283	1,148	135
65-69	2,597	492	414	78	414	414	-	78	-	78	34	2,071	1,970	101
70 and over	833	360	326	34	326	292	34	34	34	-	68	405	405	-
Not reported	244	244	211	34	244	211	34	-	-	-	-	-	-	-
Materials	**25,535**	**22,886**	**21,143**	**1,742**	**21,961**	**20,500**	**1,461**	**925**	**644**	**281**	**548**	**2,101**	**1,722**	**380**
Under 30	2,836	2,325	1,977	349	2,063	1,943	120	263	34	229	307	204	-	204
30-34	3,095	3,044	2,982	61	2,917	2,890	27	126	92	34	35	17	-	17
35-39	3,989	3,962	3,346	616	3,861	3,245	616	101	101	-	18	8	-	8
40-44	3,350	3,255	2,985	270	3,255	2,985	270	-	-	-	86	8	-	8
45-49	2,437	2,328	2,328	-	2,328	2,328	-	-	-	-	-	109	-	109
50-54	2,566	2,566	2,533	34	2,566	2,533	34	-	-	-	-	-	-	-
55-59	3,486	3,133	2,881	252	3,133	2,881	252	-	-	-	34	319	285	34
60-64	2,596	1,954	1,827	127	1,632	1,523	109	323	305	18	68	574	574	-
65-69	790	299	265	34	197	164	34	102	102	-	-	491	491	-
70 and over	381	10	10	-	-	-	-	10	10	-	-	371	371	-
Not reported	8	8	8	-	8	8	-	-	-	-	-	-	-	-
Mechanical	**228,891**	**206,943**	**195,617**	**11,326**	**203,604**	**192,942**	**10,662**	**3,339**	**2,674**	**664**	**4,752**	**17,196**	**15,201**	**1,996**
Under 30	24,493	22,785	21,787	998	21,971	21,183	788	814	604	210	950	758	-	758
30-34	28,140	27,819	26,677	1,142	27,752	26,610	1,142	68	68	-	210	110	34	76
35-39	29,139	28,441	27,296	1,145	28,188	27,043	1,145	253	253	-	442	257	34	223
40-44	28,692	27,977	26,046	1,931	27,826	25,895	1,931	151	151	-	715	-	-	-
45-49	25,549	25,204	23,140	2,065	25,195	23,130	2,065	9	9	-	274	71	-	71
50-54	24,255	23,817	22,774	1,043	23,715	22,672	1,043	102	102	-	398	39	-	39
55-59	30,121	27,917	26,445	1,472	27,597	26,302	1,295	321	144	177	639	1,565	1,243	322
60-64	22,539	16,827	15,649	1,178	16,234	15,266	968	593	383	210	708	5,005	4,498	507
65-69	10,389	3,852	3,567	285	3,378	3,127	252	474	440	34	281	6,255	6,255	-
70 and over	5,301	2,029	1,961	68	1,509	1,475	34	520	486	34	135	3,137	3,137	-
Not reported	274	274	274	-	240	240	-	34	34	-	-	-	-	-

See Footnotes at end of Table

Table B-6. Number of Scientists and Engineers by Field, Age, and Employment Status: 1982 —continued

Field and Age	Total	Employed									Unem-ployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
	Total	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Mining	8,303	7,334	6,633	702	6,998	6,401	597	336	232	104	154	815	661	152
Under 30	1,574	1,506	1,464	42	1,488	1,446	42	18	18	-	68	-	-	-
30-34	1,331	1,313	1,186	127	1,287	1,160	127	26	26	-	-	18	-	18
35-39	1,034	899	746	153	865	712	153	34	34	-	34	101	-	101
40-44	578	578	423	155	544	423	121	34	-	34	-	-	-	-
45-49	344	344	344	-	344	344	-	-	-	-	-	-	-	-
50-54	684	684	650	34	684	650	34	-	-	-	-	-	-	-
55-59	1,067	947	826	121	913	793	121	34	34	-	18	102	68	34
60-64	916	729	729	-	695	695	-	34	34	-	34	153	153	-
65-69	491	231	213	18	179	179	-	52	34	18	-	260	260	-
70 and over	285	104	52	52	-	-	-	104	52	52	-	180	180	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	10,016	9,657	9,548	109	9,403	9,294	109	254	254	-	196	163	136	28
Under 30	1,356	1,322	1,322	-	1,322	1,322	-	-	-	-	34	-	-	-
30-34	1,893	1,800	1,800	-	1,764	1,764	-	36	36	-	68	25	-	25
35-39	2,206	2,153	2,153	-	2,153	2,153	-	-	-	-	52	-	-	-
40-44	1,550	1,547	1,439	109	1,547	1,439	109	-	-	-	-	3	-	3
45-49	984	984	984	-	875	875	-	109	109	-	-	-	-	-
50-54	837	837	837	-	837	837	-	-	-	-	-	-	-	-
55-59	649	606	606	-	606	606	-	-	-	-	8	34	34	-
60-64	457	355	355	-	247	247	-	109	109	-	-	102	102	-
65-69	68	34	34	-	34	34	-	-	-	-	34	-	-	-
70 and over	18	18	18	-	18	18	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	15,038	14,166	13,187	978	13,937	12,993	944	229	194	34	130	743	649	94
Under 30	2,939	2,921	2,887	34	2,904	2,870	34	17	17	-	10	8	-	8
30-34	1,828	1,828	1,784	44	1,828	1,784	44	-	-	-	-	-	-	-
35-39	1,391	1,357	1,357	-	1,348	1,348	-	8	8	-	-	34	-	34
40-44	903	903	851	52	903	851	52	-	-	-	-	-	-	-
45-49	1,645	1,645	1,409	236	1,645	1,409	236	-	-	-	-	-	-	-
50-54	2,215	2,181	1,821	360	2,181	1,821	360	-	-	-	34	-	-	-
55-59	1,915	1,754	1,646	109	1,687	1,578	109	66	66	-	34	127	109	18
60-64	1,323	1,203	1,060	143	1,101	992	109	102	68	34	52	68	68	-
65-69	428	225	225	-	225	225	-	-	-	-	-	203	169	34
70 and over	418	114	114	-	80	80	-	34	34	-	-	303	303	-
Not reported	34	34	34	-	34	34	-	-	-	-	-	-	-	-
Other	242,923	222,930	211,654	11,276	218,622	207,973	10,650	4,307	3,681	626	4,418	15,576	12,912	2,664
Under 30	27,112	25,900	24,858	1,042	25,341	24,299	1,042	559	559	-	752	460	-	460
30-34	39,206	38,055	36,362	1,693	37,854	36,190	1,664	201	173	28	684	467	-	467
35-39	36,995	36,314	34,842	1,472	36,198	34,735	1,464	116	107	8	455	225	34	191
40-44	28,265	27,860	26,436	1,423	27,758	26,335	1,423	102	102	-	345	60	18	42
45-49	25,436	24,982	23,329	1,652	24,948	23,295	1,652	34	34	-	352	102	-	102
50-54	26,476	25,674	24,652	1,021	25,289	24,268	1,021	385	385	-	448	353	211	143
55-59	26,726	24,554	23,140	1,414	23,701	22,432	1,269	852	708	145	648	1,524	1,109	415
60-64	17,988	12,981	12,165	816	12,310	11,574	736	670	591	80	312	4,695	3,952	742
65-69	9,256	3,741	3,267	474	2,875	2,590	285	866	677	189	352	5,162	5,094	68
70 and over	5,109	2,514	2,245	269	1,991	1,899	92	523	346	177	68	2,527	2,493	34
Not reported	356	356	356	-	356	356	-	-	-	-	-	-	-	-
Life scientists	149,477	137,483	121,568	15,915	128,764	113,783	14,981	8,719	7,785	934	3,209	8,785	5,484	3,301
Under 30	19,654	17,604	15,573	2,031	14,134	12,416	1,718	3,470	3,156	313	766	1,284	-	1,284
30-34	24,893	23,632	21,419	2,213	22,031	19,955	2,076	1,602	1,464	137	562	699	-	699
35-39	26,205	25,220	22,766	2,454	24,183	21,889	2,295	1,037	877	160	290	695	-	695
40-44	19,762	18,750	16,404	2,346	18,342	16,132	2,210	408	272	136	862	150	21	129
45-49	14,010	13,706	12,769	936	13,606	12,670	936	99	99	-	228	77	43	34
50-54	16,408	15,919	12,942	2,977	15,789	12,831	2,957	130	111	20	193	297	10	287
55-59	13,430	12,529	11,127	1,402	12,003	10,601	1,402	526	526	-	43	858	716	142
60-64	7,949	6,622	5,451	1,172	6,050	4,887	1,162	573	563	10	55	1,271	1,271	-
65-69	4,660	2,075	1,982	93	1,778	1,703	73	298	279	20	202	2,383	2,361	21
70 and over	2,359	1,279	989	290	704	552	152	575	437	138	9	1,071	1,061	10
Not reported	146	146	146	-	146	146	-	-	-	-	-	-	-	-
Biologists	92,906	85,306	77,078	8,229	79,135	71,344	7,791	6,171	5,734	437	2,307	5,293	3,140	2,153
Under 30	14,022	12,486	11,375	1,111	9,733	8,752	981	2,754	2,623	130	719	817	-	817
30-34	17,845	16,964	15,367	1,596	15,794	14,217	1,576	1,170	1,150	20	434	447	-	447
35-39	17,356	16,774	15,429	1,346	16,036	14,819	1,217	738	610	128	137	445	-	445
40-44	11,585	10,717	9,615	1,102	10,393	9,417	976	325	198	127	758	109	-	109
45-49	8,746	8,568	8,069	499	8,498	7,999	499	70	70	-	132	46	21	24
50-54	8,580	8,352	7,080	1,272	8,258	6,986	1,272	94	94	-	40	188	10	178
55-59	6,935	6,264	5,613	651	5,810	5,159	651	454	454	-	21	650	549	101
60-64	4,507	3,672	3,097	575	3,398	2,823	575	274	274	-	55	780	780	-
65-69	2,147	881	871	10	776	776	-	105	96	10	-	1,266	1,244	21
70 and over	1,045	490	426	64	303	260	43	187	165	21	9	546	536	10
Not reported	137	137	137	-	137	137	-	-	-	-	-	-	-	-
Biochemists	10,476	9,626	9,272	355	9,312	8,977	335	314	296	[illegible]	88	761	421	340
Under 30	952	776	756	20	735	725	10	41	31	10	9	167	-	167
30-34	1,632	1,557	1,514	43	1,511	1,468	43	46	46	-	9	67	-	67
35-39	2,098	2,012	1,869	143	1,962	1,819	143	50	50	-	-	86	-	86
40-44	1,604	1,522	1,513	9	1,491	1,482	9	31	31	-	40	41	21	20
45-49	1,168	1,150	1,150	-	1,140	1,140	-	10	10	-	18	-	-	-
50-54	989	978	838	140	968	838	130	10	-	10	12	-	-	-
55-59	980	980	980	-	980	980	-	-	-	-	-	-	-	-
60-64	382	327	327	-	308	308	-	19	19	-	-	55	55	-
65-69	449	218	218	-	218	218	-	-	-	-	-	231	231	-
70 and over	221	109	109	-	-	-	-	109	109	-	-	113	113	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Footnotes at end of Table

Table B-6. Number of Scientists and Engineers by Field, Age, and Employment Status: 1982 —continued

Field and Age	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
	Total	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Agricultural scientists	30,263	27,836	22,595	5,241	26,679	21,491	5,188	1,157	1,105	52	699	1,728	1,405	323
Under 30	3,656	3,486	2,887	599	3,115	2,547	568	371	340	31	28	142	-	142
30-34	3,501	3,352	3,025	326	3,143	2,817	326	208	208	-	109	41	-	41
35-39	4,471	4,318	3,383	935	4,118	3,205	913	200	179	21	143	10	-	10
40-44	4,046	4,036	3,207	829	4,015	3,186	829	21	21	-	10	-	-	-
45-49	2,687	2,610	2,226	385	2,610	2,226	385	-	-	-	55	21	21	-
50-54	5,239	5,000	3,693	1,307	5,000	3,693	1,307	-	-	-	130	109	-	109
55-59	3,096	2,997	2,594	403	2,966	2,563	403	31	31	-	21	76	55	21
60-64	1,704	1,408	1,082	326	1,257	930	326	152	152	-	-	296	296	-
65-69	1,321	389	368	21	325	303	21	64	64	-	202	729	729	-
70 and over	542	239	130	109	130	21	109	109	109	-	-	303	303	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medical scientists	15,831	14,715	12,623	2,092	13,638	11,971	1,667	1,076	651	425	114	1,003	518	485
Under 30	1,024	856	554	302	552	393	159	304	162	142	10	158	-	158
30-34	1,914	1,760	1,513	247	1,583	1,453	130	178	61	117	10	144	-	144
35-39	2,280	2,116	2,085	31	2,067	2,046	21	49	39	10	10	154	-	154
40-44	2,527	2,474	2,068	406	2,443	2,047	396	31	21	10	53	-	-	-
45-49	1,409	1,377	1,325	52	1,358	1,306	52	20	20	-	21	10	-	10
50-54	1,599	1,589	1,332	257	1,563	1,316	247	26	17	10	10	-	-	-
55-59	2,420	2,288	1,940	348	2,247	1,899	348	41	41	-	-	132	113	20
60-64	1,355	1,215	945	270	1,087	826	261	128	119	10	-	140	140	-
65-69	743	587	525	61	458	407	52	128	119	10	-	156	156	-
70 and over	550	441	324	117	270	270	-	171	54	117	-	109	109	-
Not reported	10	10	10	-	10	10	-	-	-	-	-	-	-	-
Psychologists	90,225	84,140	72,069	12,070	74,855	63,315	11,540	9,285	8,755	530	2,190	3,896	952	2,944
Under 30	7,622	7,056	5,760	1,296	4,896	3,676	1,222	2,160	2,084	76	226	336	-	336
30-34	18,770	17,419	15,484	1,934	15,083	13,176	1,907	2,336	2,309	27	498	853	-	853
35-39	18,734	17,365	15,502	1,863	15,837	14,103	1,734	1,528	1,399	129	614	754	-	754
40-44	12,998	12,611	10,808	1,803	11,675	9,872	1,803	937	937	-	261	126	-	126
45-49	9,561	9,039	7,179	1,859	8,434	6,702	1,733	604	476	127	408	114	36	78
50-54	10,347	9,992	8,174	1,818	9,374	7,610	1,764	618	564	54	182	173	109	64
55-59	6,122	5,630	4,832	798	5,438	4,640	798	191	191	-	-	492	109	383
60-64	3,689	3,395	2,860	535	3,016	2,490	526	379	370	9	-	294	176	118
65-69	1,415	846	792	54	594	539	54	252	252	-	-	569	445	125
70 and over	645	461	407	54	236	236	-	225	171	54	-	183	75	108
Not reported	324	324	270	54	270	270	-	54	-	54	-	-	-	-
Social scientists	128,615	116,100	86,980	29,121	107,624	79,436	28,188	8,477	7,542	935	3,774	8,741	5,736	3,005
Under 30	12,567	11,308	8,432	2,876	10,016	7,140	2,876	1,292	1,292	-	542	718	-	718
30-34	22,867	20,732	15,578	5,154	18,728	13,834	4,894	2,004	1,744	260	1,126	1,009	-	1,009
35-39	25,077	23,951	17,367	6,584	22,624	16,391	6,234	1,326	976	350	592	533	-	533
40-44	20,100	19,693	15,468	4,225	18,682	14,456	4,225	1,011	1,011	-	240	166	-	166
45-49	11,063	10,627	8,211	2,416	10,092	7,931	2,161	536	280	256	60	376	117	260
50-54	11,833	11,079	7,908	3,171	10,576	7,438	3,137	503	470	33	642	113	-	113
55-59	9,690	8,724	6,288	2,436	8,511	6,087	2,424	213	201	12	434	532	404	128
60-64	7,238	5,574	4,329	1,244	5,144	3,912	1,233	429	417	12	66	1,598	1,520	78
65-69	4,708	2,860	2,289	571	2,365	1,806	559	495	483	12	36	1,812	1,812	-
70 and over	3,186	1,267	1,050	218	600	382	218	668	668	-	36	1,882	1,882	-
Not reported	286	286	60	226	286	60	226	-	-	-	-	-	-	-
Economists	51,831	46,966	35,416	11,550	45,133	33,862	11,271	1,832	1,553	279	1,117	3,749	3,089	660
Under 30	4,680	4,191	3,481	709	3,827	3,117	709	364	364	-	190	299	-	299
30-34	7,575	7,229	5,939	1,290	6,712	5,550	1,162	517	389	128	193	154	-	154
35-39	9,948	9,711	6,847	2,864	9,586	6,722	2,864	125	125	-	104	133	-	133
40-44	7,561	7,365	5,773	1,592	7,315	5,724	1,592	50	50	-	172	24	-	24
45-49	4,919	4,753	3,601	1,152	4,636	3,601	1,035	117	-	117	34	132	117	15
50-54	4,965	4,918	2,995	1,923	4,896	2,995	1,900	22	-	22	46	-	-	-
55-59	4,298	3,942	2,925	1,017	3,930	2,925	1,005	12	-	12	278	78	66	12
60-64	3,630	2,850	2,173	677	2,698	2,021	677	152	152	-	51	729	705	24
65-69	2,812	1,506	1,288	218	1,256	1,038	218	250	250	-	24	1,283	1,283	-
70 and over	1,323	381	381	-	156	156	-	224	224	-	24	918	918	-
Not reported	121	121	12	109	121	12	109	-	-	-	-	-	-	-
Sociologists / anthropologists	25,139	22,993	16,943	6,051	20,365	14,625	5,739	2,629	2,318	311	813	1,333	653	680
Under 30	1,831	1,668	1,018	650	1,359	710	650	308	308	-	130	33	-	33
30-34	5,526	4,959	3,695	1,264	4,322	3,073	1,249	637	622	15	261	306	-	306
35-39	5,954	5,545	3,954	1,591	4,799	3,450	1,349	746	504	242	237	172	-	172
40-44	4,781	4,570	3,498	1,072	4,233	3,160	1,072	337	337	-	68	143	-	143
45-49	1,456	1,429	1,173	256	1,375	1,149	226	54	24	30	15	12	-	12
50-54	1,996	1,936	1,645	292	1,774	1,483	292	162	162	-	60	-	-	-
55-59	1,897	1,867	1,097	770	1,837	1,067	770	30	30	-	15	15	-	15
60-64	662	411	399	12	290	290	-	121	109	12	15	236	236	-
65-69	546	344	317	27	219	204	15	125	113	12	-	202	202	-
70 and over	335	109	109	-	-	-	-	109	109	-	12	214	214	-
Not reported	156	156	39	117	156	39	117	-	-	-	-	-	-	-
Other social scientists	51,644	46,142	34,621	11,521	42,126	30,950	11,176	4,016	3,671	345	1,844	3,660	1,994	1,666
Under 30	6,057	5,449	3,933	1,516	4,830	3,313	1,516	619	619	-	222	386	-	386
30-34	9,766	8,544	5,944	2,601	7,694	5,211	2,484	850	733	117	672	550	-	550
35-39	9,175	8,695	6,566	2,129	8,239	6,218	2,021	456	348	108	251	229	-	229
40-44	7,758	7,758	6,197	1,561	7,133	5,572	1,561	624	624	-	-	-	-	-
45-49	4,689	4,446	3,437	1,009	4,081	3,181	900	365	256	109	10	233	-	233
50-54	4,872	4,224	3,268	956	3,906	2,960	945	318	308	11	536	113	-	113
55-59	3,494	2,914	2,266	649	2,743	2,095	649	171	171	-	141	439	338	101
60-64	2,946	2,313	1,757	556	2,156	1,600	556	157	157	-	-	633	579	54
65-69	1,350	1,011	685	326	890	564	326	121	121	-	12	327	327	-
70 and over	1,528	778	560	218	443	225	218	335	335	-	-	750	750	-
Not reported	9	9	9	-	9	9	-	-	-	-	-	-	-	-

NOTE: Detail may not add to total due to rounding.

Source: National Science Foundation.

Table B-7. Number of Scientists and Engineers by Field, Highest Degree, and Employment Status: 1982

Field and Highest Degree	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Total, all fields	1,911,917	1,759,344	1,588,586	170,759	1,698,640	1,534,711	163,930	60,704	53,875	6,829	35,260	117,313	86,327	30,986
Doctorate	275,615	260,032	249,493	10,539	248,066	238,487	9,579	11,966	11,006	960	4,061	11,502	8,104	3,398
Professional/medical	10,997	9,843	7,362	2,481	9,445	6,993	2,452	398	369	29	247	907	530	377
Master's	473,549	437,237	392,707	44,530	412,570	369,940	42,631	24,667	22,767	1,900	9,724	26,588	15,071	11,517
Bachelor's	958,625	881,477	772,496	108,981	860,401	755,160	105,241	21,076	17,336	3,740	17,576	59,572	45,988	13,584
Associate	37,439	35,500	34,642	858	35,320	34,473	848	180	170	10	475	1,464	973	491
Other	486	486	486	-	452	452	-	34	34	-	-	-	-	-
No degree	155,207	134,769	131,399	3,370	132,385	129,205	3,180	2,364	2,194	190	3,159	17,279	15,660	1,619
Physical scientists	128,536	115,821	108,646	7,176	110,886	104,054	6,832	4,935	4,591	344	2,879	9,834	6,778	3,056
Doctorate	52,134	48,573	47,533	1,040	46,817	45,853	965	1,755	1,680	75	823	2,738	1,998	741
Professional/medical	219	161	52	109	161	52	109	-	-	-	-	58	-	58
Master's	28,106	25,086	23,636	1,450	23,378	22,029	1,349	1,708	1,607	101	727	2,293	1,368	925
Bachelor's	48,075	42,002	37,424	4,578	40,530	36,120	4,410	1,471	1,304	167	1,329	4,745	3,410	1,335
Chemists	87,544	78,028	72,470	5,558	75,030	69,715	5,316	2,998	2,755	242	2,145	7,371	5,116	2,256
Doctorate	29,826	27,770	27,144	625	26,674	26,124	550	1,096	1,020	75	391	1,666	1,306	360
Professional/medical	176	118	9	109	118	9	109	-	-	-	-	58	-	58
Master's	18,060	15,785	14,722	1,063	15,091	14,028	1,063	694	694	-	561	1,714	1,166	548
Bachelor's	39,482	34,356	30,595	3,761	33,147	29,554	3,593	1,208	1,041	167	1,193	3,933	2,644	1,290
Physicists / astronomers	28,106	25,802	24,822	980	24,178	23,300	879	1,623	1,522	101	374	1,930	1,155	776
Doctorate	16,522	15,450	15,314	137	14,890	14,754	137	560	560	-	201	870	489	381
Professional/medical	34	34	34	-	34	34	-	-	-	-	-	-	-	-
Master's	6,319	5,795	5,517	278	4,909	4,732	177	886	785	101	46	478	101	377
Bachelor's	5,232	4,523	3,957	566	4,345	3,780	565	178	178	-	127	582	564	18
Other physical scientists	12,884	11,991	11,353	638	11,677	11,039	638	314	314	-	360	533	506	27
Doctorate	5,786	5,353	5,075	278	5,253	4,975	278	100	100	-	231	202	202	-
Professional/medical	9	9	9	-	9	9	-	-	-	-	-	-	-	-
Master's	3,728	3,506	3,397	109	3,378	3,269	109	128	128	-	120	101	101	-
Bachelor's	3,361	3,123	2,871	252	3,037	2,786	252	85	85	-	9	230	202	27
Mathematical scientists	48,425	43,944	37,049	6,895	40,961	34,307	6,654	2,983	2,741	241	924	3,558	1,809	1,749
Doctorate	17,551	16,531	15,865	666	15,783	15,117	666	748	748	-	300	720	474	246
Professional/medical	93	93	83	9	93	83	9	-	-	-	-	-	-	-
Master's	16,949	14,641	12,555	2,086	12,949	11,003	1,946	1,692	1,552	140	329	1,979	1,017	962
Bachelor's	13,832	12,679	8,545	4,134	12,136	8,104	4,032	543	442	101	295	859	318	541
Mathematicians	40,777	36,945	30,808	6,136	34,388	28,493	5,895	2,557	2,315	241	770	3,062	1,606	1,456
Doctorate	15,052	14,085	13,473	612	13,454	12,843	612	631	631	-	283	684	456	228
Professional/medical	72	72	72	-	72	72	-	-	-	-	-	-	-	-
Master's	13,359	11,473	9,656	1,816	10,035	8,359	1,676	1,438	1,297	140	319	1,567	862	705
Bachelor's	12,294	11,315	7,607	3,708	10,827	7,220	3,607	488	387	101	168	811	288	523
Statisticians	7,649	7,000	6,241	759	6,573	5,814	759	426	426	-	154	495	202	293
Doctorate	2,499	2,446	2,392	54	2,329	2,275	54	117	117	-	18	36	18	18
Professional/medical	21	21	12	9	21	12	9	-	-	-	-	-	-	-
Master's	3,590	3,169	2,899	270	2,914	2,645	270	254	254	-	9	412	155	257
Bachelor's	1,536	1,364	938	426	1,309	883	426	55	55	-	127	46	28	18
Computer specialists	174,033	168,578	122,670	45,908	164,970	119,591	45,379	3,608	3,079	529	1,479	3,975	655	3,320
Doctorate	7,435	7,315	6,715	600	7,271	6,671	600	44	44	-	-	120	-	120
Professional/medical	355	355	283	72	355	283	72	-	-	-	-	-	-	-
Master's	49,306	48,277	37,384	10,893	46,873	36,264	10,609	1,405	1,120	285	267	762	108	654
Bachelor's	116,937	112,631	78,288	34,343	110,472	76,373	34,099	2,160	1,915	244	1,212	3,093	547	2,546
Environmental scientists	46,058	42,407	40,960	1,447	40,628	39,246	1,382	1,779	1,714	65	731	2,918	2,015	902
Doctorate	8,920	8,516	8,498	18	8,223	8,205	18	293	293	-	29	376	376	-
Professional/medical	200	200	200	-	200	200	-	-	-	-	-	-	-	-
Master's	16,275	15,276	14,979	297	14,546	14,268	279	729	711	18	272	727	394	333
Bachelor's	20,662	18,416	17,284	1,132	17,659	16,574	1,085	757	710	47	431	1,815	1,245	570
Earth scientists	38,882	35,850	34,591	1,259	34,181	32,986	1,194	1,670	1,605	65	677	2,356	1,613	741
Doctorate	6,732	6,327	6,309	18	6,038	6,020	18	289	289	-	29	376	376	-
Professional/medical	200	200	200	-	200	200	-	-	-	-	-	-	-	-
Master's	13,873	13,090	12,793	297	12,409	12,131	279	681	662	18	236	548	376	172
Bachelor's	18,077	16,234	15,289	944	15,534	14,636	897	700	653	47	413	1,431	861	570
Oceanographers	1,704	1,649	1,625	24	1,596	1,571	24	54	54	-	36	18	18	-
Doctorate	467	467	467	-	464	464	-	4	4	-	-	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	756	720	720	-	688	688	-	32	32	-	36	-	-	-
Bachelor's	481	463	438	24	444	420	24	18	18	-	-	18	18	-
Atmospheric scientists	5,470	4,907	4,744	163	4,852	4,689	163	56	56	-	18	545	384	161
Doctorate	1,722	1,722	1,722	-	1,722	1,722	-	-	-	-	-	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	1,646	1,466	1,466	-	1,450	1,450	-	17	17	-	-	179	18	161
Bachelor's	2,103	1,720	1,557	163	1,681	1,518	163	39	39	-	18	366	366	-

See Footnotes at end of Table

Table B-7. Number of Scientists and Engineers by Field, Highest Degree, and Employment Status: 1982—continued

Field and Highest Degree	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Engineers	1,146,562	1,050,872	998,645	52,228	1,009,953	960,977	48,975	20,919	17,668	3,251	20,074	75,605	62,903	12,703
Doctorate	47,634	45,530	43,639	1,891	44,026	42,205	1,820	1,504	1,434	70	513	1,591	1,130	461
Professional/medical	2,985	2,616	2,309	307	2,465	2,158	307	151	151	-	68	311	207	104
Master's	247,830	230,827	217,525	13,302	226,079	213,282	12,797	4,748	4,243	504	4,425	12,578	8,668	3,910
Bachelor's	654,982	601,144	568,644	32,500	569,225	539,202	30,023	11,919	9,443	2,477	11,435	42,382	36,264	6,118
Associate	37,439	35,500	34,642	858	35,320	34,473	848	180	170	10	475	1,464	973	491
Other	486	486	486	-	452	452	-	34	34	-	-	-	-	-
No degree	155,207	134,769	131,399	3,370	132,385	129,205	3,180	2,384	2,194	190	3,158	17,279	15,660	1,619
Aeronautical / Astronautical	50,229	46,007	44,731	1,276	44,965	43,689	1,276	1,042	1,042	-	826	3,396	2,907	489
Doctorate	2,984	2,812	2,760	52	2,812	2,760	52	-	-	-	36	135	34	101
Professional/medical	354	320	320	-	286	286	-	34	34	-	34	-	-	-
Master's	13,939	13,302	12,679	624	12,685	12,061	624	617	617	-	114	523	481	42
Bachelor's	24,274	22,030	21,604	426	21,818	21,392	426	212	212	-	520	1,724	1,513	211
Associate	1,501	1,354	1,326	28	1,354	1,326	28	-	-	-	-	237	136	101
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	7,087	6,189	6,043	146	6,010	5,864	146	179	179	-	121	777	744	34
Chemical	68,911	61,277	57,333	3,944	59,460	55,678	3,783	1,817	1,655	161	1,752	5,882	4,260	1,621
Doctorate	6,647	6,258	5,702	556	5,846	5,290	556	412	412	-	102	287	278	9
Professional/medical	154	120	86	34	112	78	34	8	8	-	34	-	-	-
Master's	17,010	14,877	13,689	1,188	14,715	13,526	1,188	163	163	-	668	1,464	953	511
Bachelor's	41,736	37,290	35,132	2,157	36,098	34,094	2,004	1,192	1,039	153	930	3,517	2,416	1,101
Associate	381	381	381	-	381	381	-	-	-	-	-	-	-	-
Other	34	34	34	-	34	34	-	-	-	-	-	-	-	-
No degree	2,949	2,316	2,308	8	2,274	2,274	-	42	34	8	18	614	614	-
Civil	159,709	145,956	139,951	6,004	141,959	136,726	5,233	3,995	3,224	771	2,707	11,046	9,598	1,448
Doctorate	4,667	4,427	4,427	-	4,374	4,374	-	52	52	-	61	179	34	145
Professional/medical	378	274	274	-	274	274	-	-	-	-	-	104	-	104
Master's	32,752	31,036	29,550	1,486	30,068	28,616	1,452	968	934	34	456	1,259	897	362
Bachelor's	100,616	91,992	87,740	4,252	89,498	85,984	3,514	2,494	1,756	737	1,764	6,860	6,191	669
Associate	3,952	3,464	3,385	79	3,396	3,317	79	68	68	-	151	337	236	101
Other	278	278	278	-	244	244	-	34	34	-	-	-	-	-
No degree	17,065	14,485	14,297	188	14,105	13,917	188	380	380	-	272	2,307	2,240	66
Electrical / Electronic	262,299	245,781	237,523	8,258	241,851	234,121	7,730	3,931	3,403	528	2,989	13,529	10,782	2,747
Doctorate	10,149	9,767	9,521	247	9,589	9,376	213	179	145	34	27	355	311	44
Professional/medical	692	674	655	18	565	547	18	109	109	-	-	18	18	-
Master's	60,314	57,551	55,257	2,294	56,432	54,276	2,156	1,119	981	138	426	2,337	1,383	953
Bachelor's	150,001	139,606	134,607	4,999	137,689	133,047	4,642	1,917	1,560	356	1,918	8,477	7,201	1,276
Associate	10,330	9,981	9,688	293	9,947	9,654	293	34	34	-	112	237	34	203
Other	68	68	68	-	68	68	-	-	-	-	-	-	-	-
No degree	30,746	28,135	27,726	409	27,561	27,153	409	574	574	-	506	2,106	1,835	271
Industrial	74,698	67,937	61,325	6,612	67,192	60,660	6,531	746	665	81	1,602	5,159	4,076	1,083
Doctorate	1,218	1,218	1,076	143	1,218	1,076	143	-	-	-	-	-	-	-
Professional/medical	86	86	52	34	86	52	34	-	-	-	-	-	-	-
Master's	13,423	12,205	10,880	1,326	11,892	10,566	1,326	313	313	-	231	987	488	499
Bachelor's	43,772	40,632	35,802	4,830	40,305	35,487	4,817	328	315	13	962	2,178	1,889	289
Associate	2,487	2,420	2,420	-	2,420	2,420	-	-	-	-	-	68	68	-
Other	8	8	8	-	8	8	-	-	-	-	-	-	-	-
No degree	13,703	11,367	11,088	280	11,263	11,051	212	104	37	68	410	1,926	1,631	295
Materials	25,536	22,886	21,143	1,742	21,961	20,500	1,461	925	644	281	548	2,101	1,722	380
Doctorate	3,557	3,312	3,152	161	3,149	3,006	142	163	145	18	42	202	101	101
Professional/medical	195	177	143	34	177	143	34	-	-	-	-	18	18	-
Master's	6,362	5,608	4,979	628	5,176	4,776	400	432	203	229	266	488	413	75
Bachelor's	12,605	11,547	10,680	867	11,217	10,384	833	330	296	34	146	913	818	94
Associate	453	420	367	52	420	367	52	-	-	-	-	34	34	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	2,363	1,823	1,823	-	1,823	1,823	-	-	-	-	94	446	337	109
Mechanical	228,891	206,943	195,617	11,326	203,604	192,942	10,662	3,338	2,674	664	4,752	17,196	15,201	1,996
Doctorate	6,586	6,341	6,255	86	5,897	5,811	86	445	445	-	102	143	135	8
Professional/medical	339	339	305	34	339	305	34	-	-	-	-	-	-	-
Master's	47,416	43,551	40,438	3,113	43,119	40,040	3,079	432	399	34	1,366	2,499	1,906	593
Bachelor's	140,900	127,192	119,643	7,549	124,954	117,992	6,962	2,237	1,651	586	2,729	10,979	9,908	1,072
Associate	6,778	6,447	6,403	44	6,369	6,335	34	78	68	10	42	289	237	52
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	26,872	23,073	22,573	500	22,927	22,461	466	146	112	34	513	3,286	3,015	271
Mining	8,303	7,334	6,633	702	6,998	6,401	597	336	232	104	154	815	661	153
Doctorate	419	419	400	18	383	383	-	36	18	18	-	-	-	-
Professional/medical	18	18	18	-	18	18	-	-	-	-	-	-	-	-
Master's	873	751	662	90	751	662	90	-	-	-	18	104	3	101
Bachelor's	6,341	5,630	5,070	560	5,382	4,874	507	248	196	52	136	576	524	52
Associate	71	71	71	-	71	71	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	581	446	412	34	394	394	-	52	18	34	-	135	135	-
Nuclear	10,016	9,657	9,548	109	9,403	9,294	109	254	254	-	196	163	136	27
Doctorate	872	838	838	-	711	711	-	127	127	-	-	34	34	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	3,654	3,612	3,612	-	3,593	3,593	-	18	18	-	-	42	34	8
Bachelor's	4,359	4,220	4,111	109	4,111	4,002	109	109	109	-	120	19	-	19
Associate	180	146	146	-	146	146	-	-	-	-	34	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	951	841	841	-	841	841	-	-	-	-	42	68	68	-
Petroleum	15,038	14,165	13,187	978	13,937	12,993	944	228	194	34	130	743	649	94
Doctorate	706	672	672	-	672	672	-	-	-	-	-	34	34	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	2,260	2,024	1,869	155	2,024	1,869	155	-	-	-	34	202	202	-
Bachelor's	10,222	9,652	8,864	788	9,458	8,704	755	194	160	34	62	507	413	94
Associate	102	102	102	-	102	102	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	1,749	1,715	1,681	34	1,681	1,647	34	34	34	-	34	-	-	-

See Footnotes at end of Table

Table B-7. Number of Scientists and Engineers by Field, Highest Degree, and Employment Status: 1982—continued

Field and Highest Degree	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Other	242,923	222,930	211,654	11,276	218,622	207,973	10,650	4,307	3,681	626	4,418	15,576	12,912	2,664
Doctorate	9,829	9,465	8,836	629	9,375	8,746	629	90	90	-	143	222	170	52
Professional/medical	780	609	456	153	609	456	153	-	-	-	-	171	171	-
Master's	49,825	46,310	43,911	2,398	45,624	43,296	2,328	686	616	70	842	2,673	1,909	765
Bachelor's	120,134	111,354	105,390	5,963	108,694	103,242	5,452	2,659	2,149	511	2,148	6,633	5,391	1,241
Associate	11,115	10,716	10,354	362	10,716	10,354	362	-	-	-	136	263	229	34
Other	98	98	98	-	98	98	-	-	-	-	-	-	-	-
No degree	51,142	44,380	42,608	1,772	43,507	41,781	1,726	873	827	46	1,149	5,613	5,042	572
Life scientists	149,477	137,483	121,568	15,915	128,764	113,783	14,981	8,719	7,785	934	3,209	8,785	5,484	3,301
Doctorate	54,275	51,025	49,352	1,673	48,969	47,588	1,380	2,056	1,764	293	866	2,384	1,845	539
Professional/medical	5,080	4,757	3,936	821	4,510	3,718	792	247	218	29	-	323	210	113
Master's	36,181	32,336	28,592	3,744	27,872	24,538	3,334	4,464	4,054	410	1,059	2,786	1,324	1,462
Bachelor's	53,941	49,365	39,687	9,677	47,413	37,938	9,475	1,951	1,749	202	1,284	3,292	2,105	1,187
Biologists	92,896	85,306	77,078	8,228	79,135	71,344	7,791	6,171	5,734	437	2,307	5,283	3,140	2,153
Doctorate	32,485	30,238	29,104	1,134	28,823	27,845	978	1,415	1,259	156	566	1,681	1,413	268
Professional/medical	660	559	333	226	559	333	226	-	-	-	-	101	-	101
Master's	23,460	21,153	19,322	1,831	17,909	16,196	1,712	3,244	3,125	119	913	1,394	468	925
Bachelor's	36,301	33,356	28,319	5,037	31,844	26,968	4,876	1,512	1,350	162	828	2,117	1,250	856
Biochemists	10,476	9,626	9,272	355	9,312	8,977	335	314	295	20	89	761	421	340
Doctorate	7,832	7,485	7,431	54	7,298	7,254	44	187	177	10	49	298	165	132
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	1,912	1,561	1,412	148	1,434	1,295	136	127	117	10	31	320	113	208
Bachelor's	732	581	428	152	581	428	152	-	-	-	9	143	143	-
Agricultural scientists	30,263	27,836	22,596	5,241	26,679	21,491	5,188	1,157	1,105	52	699	1,728	1,405	323
Doctorate	8,071	7,497	7,321	176	7,404	7,228	176	92	92	-	210	364	245	119
Professional/medical	109	109	109	-	109	109	-	-	-	-	-	-	-	-
Master's	7,777	6,931	5,891	1,040	6,208	5,190	1,018	722	701	21	62	784	621	163
Bachelor's	14,307	13,300	9,275	4,025	12,957	8,963	3,994	342	311	31	427	580	539	41
Medical scientists	15,831	14,713	12,622	2,092	13,638	11,971	1,667	1,076	651	425	114	1,003	518	485
Doctorate	5,867	5,805	5,496	309	5,443	5,261	182	362	235	127	41	41	21	19
Professional/medical	4,311	4,089	3,494	595	3,842	3,277	566	247	218	29	-	222	210	12
Master's	3,032	2,692	1,967	725	2,321	1,855	466	371	111	259	53	287	122	165
Bachelor's	2,601	2,128	1,665	463	2,031	1,578	453	97	87	10	20	453	164	289
Psychologists	90,225	84,140	72,070	12,070	74,855	63,315	11,540	9,285	8,755	530	2,190	3,896	950	2,946
Doctorate	44,298	42,294	39,774	2,519	38,859	36,722	2,137	3,435	3,052	383	874	1,131	672	459
Professional/medical	232	64	64	-	64	64	-	-	-	-	168	-	-	-
Master's	35,103	32,379	27,661	4,718	27,182	22,603	4,579	5,197	5,057	139	524	2,201	214	1,987
Bachelor's	10,591	9,404	4,571	4,833	8,750	3,925	4,825	654	645	8	624	564	64	500
Social scientists	128,615	116,100	86,980	29,121	107,624	79,438	28,186	8,477	7,542	935	3,774	8,741	5,736	3,005
Doctorate	43,366	40,249	38,117	2,132	38,118	36,126	1,992	2,131	1,992	140	676	2,441	1,609	832
Professional/medical	1,824	1,599	435	1,164	1,599	435	1,164	-	-	-	11	214	113	101
Master's	43,799	38,415	30,375	8,041	33,691	25,953	7,738	4,724	4,422	302	2,122	3,262	1,978	1,284
Bachelor's	39,625	35,837	18,052	17,785	34,216	16,924	17,292	1,621	1,128	493	966	2,823	2,036	787
Economists	51,831	46,965	35,416	11,550	45,133	33,862	11,271	1,832	1,553	279	1,117	3,749	3,088	660
Doctorate	16,862	15,901	15,592	309	15,409	15,100	309	493	493	-	85	896	721	175
Professional/medical	531	407	69	338	407	69	338	-	-	-	11	113	113	-
Master's	15,659	13,929	10,336	3,592	13,179	9,596	3,581	750	738	12	391	1,339	994	344
Bachelor's	18,759	16,728	9,418	7,310	16,138	9,095	7,043	590	323	267	630	1,401	1,260	141
Sociologists / anthropologists	25,139	22,993	16,943	6,051	20,365	14,625	5,740	2,629	2,318	311	813	1,333	653	680
Doctorate	11,425	10,395	9,764	632	9,344	8,852	492	1,051	912	140	304	726	428	298
Professional/medical	200	200	27	173	200	27	173	-	-	-	-	-	-	-
Master's	6,148	5,328	4,041	1,287	4,070	2,954	1,116	1,258	1,087	172	497	322	101	221
Bachelor's	7,367	7,070	3,111	3,959	6,750	2,792	3,959	320	320	-	12	285	123	161
Other social scientists	51,644	46,142	34,621	11,521	42,126	30,950	11,176	4,016	3,671	345	1,844	3,659	1,994	1,665
Doctorate	15,059	13,953	12,761	1,191	13,365	12,174	1,191	587	587	-	287	819	458	360
Professional/medical	1,093	992	339	653	992	339	653	-	-	-	-	101	-	101
Master's	21,992	19,158	15,997	3,161	16,442	13,400	3,042	2,716	2,597	119	1,233	1,601	883	718
Bachelor's	13,500	12,039	5,523	6,516	11,327	5,037	6,290	712	486	226	324	1,137	652	485

NOTE: Detail may not add to total due to rounding.

Source: National Science Foundation.

Table B-8. Number of Employed Scientists and Engineers by Field, Sex, Race, and Type of Employer: 1982

Field, Sex, and Race	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Total, all fields														
Sex	1,759,344	1,203,987	224,262	185,299	24,446	14,517	22,506	36,654	132,593	3,070	50,364	31,564	7,444	46,790
Male	1,598,067	1,127,426	179,502	153,985	17,789	7,748	14,367	28,480	120,861	2,954	45,382	28,089	6,734	44,262
Female	161,277	76,561	44,860	31,433	6,658	6,769	8,139	8,174	11,732	115	4,982	3,475	709	2,529
Race	1,759,344	1,203,987	224,262	185,299	24,446	14,517	22,506	36,654	132,593	3,070	50,364	31,564	7,444	46,790
White	1,606,094	1,104,880	204,349	168,561	22,212	13,656	20,724	33,136	119,727	2,724	45,746	25,981	6,229	42,468
Black	38,346	20,639	6,240	4,773	520	547	507	1,198	5,295	81	1,173	1,717	143	1,354
Asian	86,907	60,118	10,449	9,780	901	168	784	1,920	5,394	119	2,480	2,925	715	2,086
Other[1]	27,997	18,350	3,224	2,284	813	147	492	401	2,177	145	956	941	357	884
Physical scientists														
Sex	115,821	69,335	26,783	24,202	2,541	40	659	3,742	10,753	27	1,802	1,017	237	1,466
Male	104,673	63,195	23,833	21,612	2,203	18	395	3,418	9,880	18	1,418	875	221	1,421
Female	11,148	6,141	2,950	2,590	338	22	264	324	872	9	384	142	17	45
Race	115,821	69,335	26,783	24,202	2,541	40	659	3,742	10,753	27	1,802	1,017	237	1,466
White	104,202	62,444	24,489	22,195	2,294	-	419	3,495	9,623	18	1,542	783	228	1,162
Black	2,585	1,246	572	373	178	22	38	18	405	9	27	93	9	178
Asian	7,139	4,501	1,331	1,277	36	18	178	205	541	-	162	83	-	127
Other[1]	1,895	1,144	390	356	34	-	24	24	183	-	70	58	-	-
Chemists														
Sex	78,028	53,541	14,662	12,819	1,821	22	533	1,306	4,728	27	1,356	950	84	843
Male	68,873	48,021	12,640	11,158	1,482	-	269	1,032	4,174	18	1,046	808	68	798
Female	9,155	5,520	2,022	1,662	339	22	264	274	551	9	310	142	17	45
Race	78,028	53,541	14,662	12,819	1,821	22	533	1,306	4,728	27	1,356	950	84	843
White	69,177	47,715	13,243	11,636	1,607	-	302	1,190	4,094	18	1,097	735	75	707
Black	2,136	1,133	554	355	178	22	28	9	273	9	27	83	9	9
Asian	5,695	3,861	733	697	36	-	178	107	334	-	162	73	-	127
Other[1]	1,021	712	132	132	-	-	24	-	24	-	70	58	-	-
Physicists / astronomers														
Sex	25,802	9,809	10,248	9,617	612	18	126	1,574	3,385	-	68	10	36	546
Male	24,410	9,412	9,414	8,784	612	18	126	1,541	3,267	-	58	10	36	546
Female	1,392	397	833	833	-	-	-	33	118	-	10	-	-	-
Race	25,802	9,809	10,248	9,617	612	18	126	1,574	3,385	-	68	10	36	546
White	23,860	9,245	9,421	8,843	578	-	117	1,477	3,119	-	68	-	36	378
Black	330	57	19	19	-	-	9	-	78	-	-	-	-	168
Asian	1,081	326	599	581	-	18	-	73	73	-	-	10	-	-
Other[1]	531	180	210	176	34	-	-	24	117	-	-	-	-	-
Other physical scientists														
Sex	11,991	5,988	1,874	1,765	109	-	-	862	2,842	-	377	57	117	77
Male	11,390	5,762	1,779	1,671	109	-	-	845	2,439	-	314	57	117	77
Female	601	224	94	94	-	-	-	17	203	-	64	-	-	-
Race	11,991	5,988	1,874	1,765	109	-	-	862	2,842	-	377	57	117	77
White	11,165	5,485	1,825	1,716	109	-	-	826	2,410	-	377	48	117	77
Black	130	56	-	-	-	-	-	9	56	-	-	9	-	-
Asian	353	195	-	-	-	-	-	24	134	-	-	-	-	-
Other[1]	343	252	49	49	-	-	-	-	42	-	-	-	-	-
Mathematical scientists														
Sex	43,944	17,400	20,091	16,635	3,355	101	202	698	4,095	27	491	155	99	686
Male	35,893	14,362	16,894	14,583	2,229	81	36	497	2,927	27	355	125	46	625
Female	8,051	3,038	3,197	2,051	1,125	20	167	201	1,168	-	136	30	53	61
Race	43,944	17,400	20,091	16,635	3,355	101	202	698	4,095	27	491	155	99	686
White	39,450	16,135	17,639	14,643	2,928	68	190	621	3,583	18	397	124	77	664
Black	1,404	340	664	489	151	24	-	23	336	-	12	10	-	12
Asian	2,333	586	1,449	1,286	163	-	12	33	140	9	62	9	22	10
Other[1]	758	349	339	217	113	9	-	21	37	-	-	12	-	-
Mathematicians														
Sex	36,945	14,910	17,740	14,323	3,337	80	117	508	2,814	-	91	92	44	629
Male	30,900	12,633	15,032	12,760	2,212	60	-	397	2,114	-	59	80	18	568
Female	6,044	2,277	2,708	1,563	1,125	20	117	111	701	-	31	12	27	61
Race	36,945	14,910	17,740	14,323	3,337	80	117	508	2,814	-	91	92	44	629
White	33,282	14,075	15,349	12,383	2,910	56	117	466	2,475	-	79	70	44	607
Black	1,202	298	652	477	151	24	-	-	220	-	12	10	-	12
Asian	1,882	370	1,408	1,245	163	-	-	21	82	-	-	-	-	10
Other[1]	569	169	330	217	113	-	-	21	37	-	-	12	-	-
Statisticians														
Sex	7,000	2,490	2,351	2,312	18	21	85	190	1,281	27	400	63	55	57
Male	4,993	1,729	1,862	1,823	18	21	36	101	813	27	295	45	28	57
Female	2,007	761	489	489	-	-	50	90	468	-	105	18	27	-
Race	7,000	2,490	2,351	2,312	18	21	85	190	1,281	27	400	63	55	57
White	6,168	2,062	2,290	2,260	18	12	74	155	1,108	18	318	54	33	57
Black	202	53	12	12	-	-	-	23	114	-	-	-	-	-
Asian	440	195	40	40	-	-	12	12	59	9	82	9	22	-
Other[1]	189	180	9	-	-	9	-	-	-	-	-	-	-	-
Computer specialists														
Sex	168,578	133,047	9,559	7,054	1,770	736	1,969	3,158	11,653	283	4,147	2,058	615	2,089
Male	132,139	105,081	7,483	5,379	1,399	706	1,661	2,151	8,444	263	2,980	1,635	480	1,961
Female	36,439	27,966	2,075	1,674	371	30	308	1,008	3,209	20	1,166	423	135	128
Race	168,578	133,047	9,559	7,054	1,770	736	1,969	3,158	11,653	283	4,147	2,058	615	2,089
White	152,161	121,325	8,422	6,204	1,493	720	1,874	2,728	9,798	273	3,792	1,769	423	1,756
Black	5,604	3,537	357	189	168	-	13	48	1,420	-	183	34	-	11
Asian	7,944	6,130	630	619	-	10	83	362	284	9	133	91	183	40
Other[1]	2,869	2,055	150	41	109	-	-	-	150	-	38	164	30	282

See Footnotes at end of Table

Table B-8. Number of Employed Scientists and Engineers by Field, Sex, Race, and Type of Employer: 1982—continued

Field, Sex, and Race	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Environmental scientists														
Sex	42,407	26,442	5,328	4,713	615	-	-	376	7,339	152	1,962	181	109	519
Male	39,341	24,657	4,980	4,375	605	-	-	297	6,681	152	1,807	164	109	494
Female	3,066	1,785	348	338	11	-	-	79	657	-	155	17	-	25
Race	42,407	26,442	5,328	4,713	615	-	-	376	7,339	152	1,962	181	109	519
White	40,772	25,599	4,931	4,325	606	-	-	376	6,975	143	1,941	181	109	519
Black	325	177	9	-	9	-	-	-	136	-	-	-	-	-
Asian	900	390	331	331	-	-	-	-	170	9	-	-	-	-
Other[1]	410	276	57	57	-	-	-	-	55	-	21	-	-	-
Earth scientists														
Sex	35,850	24,851	3,937	3,349	588	-	-	121	4,451	-	1,853	111	73	442
Male	33,280	23,236	3,592	3,014	578	-	-	94	4,077	-	1,698	94	73	418
Female	2,571	1,626	346	335	11	-	-	27	375	-	155	17	-	25
Race	35,850	24,851	3,937	3,349	588	-	-	121	4,451	-	1,853	111	73	442
White	34,699	24,083	3,747	3,159	588	-	-	121	4,290	-	1,832	111	73	442
Black	248	177	-	-	-	-	-	-	71	-	-	-	-	-
Asian	616	343	180	180	-	-	-	-	93	-	-	-	-	-
Other[1]	318	258	10	10	-	-	-	-	28	-	21	-	-	-
Oceanographers														
Sex	1,649	353	526	517	9	-	-	45	671	36	-	-	-	18
Male	1,466	225	526	517	9	-	-	21	639	36	-	-	-	18
Female	183	127	-	-	-	-	-	24	32	-	-	-	-	-
Race	1,649	353	526	517	9	-	-	45	671	36	-	-	-	18
White	1,536	336	471	471	-	-	-	45	629	36	-	-	-	18
Black	33	-	9	-	9	-	-	-	23	-	-	-	-	-
Asian	9	-	9	9	-	-	-	-	-	-	-	-	-	-
Other[1]	73	18	36	36	-	-	-	-	18	-	-	-	-	-
Atmospheric scientists														
Sex	4,907	1,228	865	847	18	-	-	209	2,216	115	109	70	36	58
Male	4,586	1,197	862	845	18	-	-	181	1,966	115	109	70	36	58
Female	312	31	3	3	-	-	-	28	251	-	-	-	-	-
Race	4,907	1,228	865	847	18	-	-	209	2,216	115	109	70	36	58
White	4,568	1,181	712	694	18	-	-	209	2,096	107	109	70	36	58
Black	45	-	-	-	-	-	-	-	45	-	-	-	-	-
Asian	275	47	142	142	-	-	-	-	77	9	-	-	-	-
Other[1]	20	-	11	11	-	-	-	-	9	-	-	-	-	-
Engineers														
Sex	1,050,872	843,952	32,148	27,406	4,070	672	2,056	12,256	70,769	1,910	25,892	21,024	4,036	36,829
Male	1,027,135	825,167	30,589	26,299	3,652	638	1,986	12,011	69,332	1,883	25,462	20,685	3,983	36,038
Female	23,737	18,785	1,559	1,107	418	34	70	245	1,436	27	430	339	53	791
Race	1,050,872	843,952	32,148	27,406	4,070	672	2,056	12,256	70,769	1,910	25,892	21,024	4,036	36,829
White	955,972	772,309	27,666	23,373	3,700	593	1,838	11,049	63,626	1,625	23,218	17,373	3,486	33,769
Black	17,687	13,182	503	358	84	61	31	186	1,979	51	333	635	41	756
Asian	59,445	45,413	3,230	3,033	179	18	73	860	3,726	91	1,748	2,374	228	1,702
Other[1]	17,758	13,048	749	642	107	-	114	161	1,430	142	592	642	270	602
Aeronautical / Astronautical														
Sex	46,007	34,919	1,706	1,672	34	-	-	569	7,152	34	34	211	102	1,281
Male	45,158	34,296	1,566	1,532	34	-	-	569	7,074	34	34	211	102	1,273
Female	849	623	140	140	-	-	-	-	77	-	-	-	-	8
Race	46,007	34,919	1,706	1,672	34	-	-	569	7,152	34	34	211	102	1,281
White	43,070	32,614	1,499	1,465	34	-	-	475	6,875	34	34	211	102	1,227
Black	639	426	46	46	-	-	-	11	156	-	-	-	-	-
Asian	1,790	1,399	161	161	-	-	-	83	92	-	-	-	-	55
Other[1]	508	480	-	-	-	-	-	-	28	-	-	-	-	-
Chemical														
Sex	61,277	54,945	1,905	1,671	234	-	-	905	1,465	52	295	195	86	1,430
Male	58,849	52,726	1,855	1,637	218	-	-	880	1,415	52	278	195	86	1,362
Female	2,428	2,219	50	33	17	-	-	25	50	-	17	-	-	68
Race	61,277	54,945	1,905	1,671	234	-	-	905	1,465	52	295	195	86	1,430
White	54,906	48,598	1,486	1,252	234	-	-	832	1,305	34	295	177	68	1,114
Black	485	485	-	-	-	-	-	-	-	-	-	-	-	-
Asian	4,955	4,278	252	252	-	-	-	73	91	18	-	18	18	207
Other[1]	931	586	167	167	-	-	-	-	69	-	-	-	-	109
Civil														
Sex	145,955	90,456	3,792	3,397	266	129	102	841	13,268	353	17,763	13,501	768	5,112
Male	143,655	89,357	3,631	3,353	149	129	68	833	12,838	353	17,523	13,271	760	5,021
Female	2,301	1,099	161	44	117	-	34	8	430	-	239	230	8	91
Race	145,955	90,456	3,792	3,397	266	129	102	841	13,268	353	17,763	13,501	768	5,112
White	128,475	80,240	2,920	2,592	219	109	102	752	11,423	353	15,935	11,322	667	4,761
Black	2,128	1,021	51	20	10	20	-	10	480	-	187	307	10	61
Asian	12,186	7,326	776	776	-	-	-	61	1,009	-	1,274	1,457	91	192
Other[1]	3,166	1,868	45	8	36	-	-	18	356	-	366	415	-	98
Electrical / Electronic														
Sex	245,781	200,359	7,511	6,492	975	44	273	4,018	20,990	503	1,000	1,821	814	8,493
Male	242,350	197,656	7,315	6,315	956	44	265	3,985	20,751	503	1,000	1,813	814	8,249
Female	3,432	2,703	196	177	19	-	8	33	239	-	-	8	-	244
Race	245,781	200,359	7,511	6,492	975	44	273	4,018	20,990	503	1,000	1,821	814	8,493
White	220,133	179,853	6,888	5,959	897	34	219	3,484	18,573	418	886	1,248	725	7,837
Black	5,714	4,312	155	102	42	10	20	85	665	31	41	233	-	174
Asian	16,109	13,148	298	279	18	-	-	361	1,386	55	55	306	55	445
Other[1]	3,825	3,025	170	152	18	-	34	88	366	-	18	34	34	36

See Footnotes at end of Table

Table B-8. Number of Employed Scientists and Engineers by Field, Sex, Race, and Type of Employer: 1982—continued

Field, Sex, and Race	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Industrial														
Sex	67,937	60,654	1,171	1,026	145	-	435	397	2,437	52	162	504	71	2,055
Male	65,926	58,771	1,160	1,023	137	-	424	397	2,421	44	153	496	68	1,992
Female	2,011	1,883	11	3	8	-	11	-	17	8	8	8	3	62
Race	67,937	60,654	1,171	1,026	145	-	435	397	2,437	52	162	504	71	2,055
White	64,322	57,447	1,108	971	135	-	406	387	2,248	42	162	504	71	1,949
Black	1,061	917	10	-	10	-	10	10	51	10	-	-	-	51
Asian	1,947	1,737	36	36	-	-	-	-	119	-	-	-	-	55
Other[1]	607	552	18	18	-	-	18	-	18	-	-	-	-	-
Materials														
Sex	22,886	19,181	1,670	1,652	18	-	-	214	1,220	-	71	34	127	369
Male	22,321	18,714	1,670	1,652	18	-	-	206	1,167	-	68	34	127	336
Female	565	467	-	-	-	-	-	8	53	-	3	-	-	33
Race	22,886	19,181	1,670	1,652	18	-	-	214	1,220	-	71	34	127	369
White	20,653	17,483	1,252	1,252	-	-	-	178	1,176	-	71	34	109	350
Black	184	164	10	10	-	-	-	-	10	-	-	-	-	-
Asian	1,790	1,310	408	390	18	-	-	36	-	-	-	-	18	18
Other[1]	259	224	-	-	-	-	-	-	34	-	-	-	-	-
Mechanical														
Sex	206,943	179,611	7,136	5,210	1,671	255	409	1,906	9,587	170	652	1,152	424	5,896
Male	203,411	176,927	6,461	4,803	1,437	221	409	1,889	9,511	170	644	1,128	416	5,856
Female	3,532	2,683	675	407	234	34	-	17	76	-	8	25	8	40
Race	206,943	179,611	7,136	5,210	1,671	255	409	1,906	9,587	170	652	1,152	424	5,896
White	190,240	166,467	5,815	3,943	1,627	244	339	1,763	8,734	170	507	720	359	5,366
Black	2,262	1,713	195	174	10	10	-	34	204	-	-	24	10	82
Asian	10,888	8,683	833	833	-	-	36	55	525	-	55	338	36	326
Other[1]	3,553	2,747	294	260	34	-	34	54	122	-	90	70	18	122
Mining														
Sex	7,334	6,249	311	303	8	-	-	109	307	-	159	52	34	114
Male	7,226	6,170	303	303	-	-	-	109	288	-	159	52	34	114
Female	107	79	8	-	8	-	-	-	19	-	-	-	-	-
Race	7,334	6,249	311	303	8	-	-	109	307	-	159	52	34	114
White	7,033	5,948	311	303	8	-	-	109	307	-	159	52	34	114
Black	28	28	-	-	-	-	-	-	-	-	-	-	-	-
Asian	109	109	-	-	-	-	-	-	-	-	-	-	-	-
Other[1]	163	163	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear														
Sex	9,657	6,771	203	203	-	-	34	207	1,725	-	18	109	177	414
Male	9,520	6,659	203	203	-	-	34	199	1,708	-	18	109	177	414
Female	137	112	-	-	-	-	-	8	17	-	-	-	-	-
Race	9,657	6,771	203	203	-	-	34	207	1,725	-	18	109	177	414
White	8,705	6,047	203	203	-	-	34	171	1,551	-	-	109	177	414
Black	82	51	-	-	-	-	-	-	31	-	-	-	-	-
Asian	730	566	-	-	-	-	-	36	109	-	18	-	-	-
Other[1]	141	107	-	-	-	-	-	-	34	-	-	-	-	-
Petroleum														
Sex	14,165	12,252	66	66	-	-	-	109	379	-	211	-	143	1,006
Male	13,782	11,896	58	58	-	-	-	109	360	-	211	-	143	1,006
Female	383	356	8	8	-	-	-	-	19	-	-	-	-	-
Race	14,165	12,252	66	66	-	-	-	109	379	-	211	-	143	1,006
White	13,200	11,629	66	66	-	-	-	109	340	-	211	-	34	812
Black	139	88	-	-	-	-	-	-	21	-	-	-	-	31
Asian	302	247	-	-	-	-	-	-	18	-	-	-	-	36
Other[1]	524	288	-	-	-	-	-	-	-	-	-	-	109	127
Other														
Sex	222,930	178,557	6,677	5,714	719	244	803	2,981	12,240	746	5,528	3,446	1,292	10,660
Male	214,937	171,996	6,368	5,419	704	244	786	2,835	11,798	727	5,374	3,378	1,258	10,417
Female	7,993	6,561	309	295	14	-	17	146	442	18	154	68	34	244
Race	222,930	178,557	6,677	5,714	719	244	803	2,981	12,240	746	5,528	3,446	1,292	10,660
White	205,235	164,985	6,118	5,366	547	206	738	2,790	11,093	575	4,959	2,997	1,153	9,826
Black	4,975	3,977	37	5	12	20	-	35	361	10	105	72	20	358
Asian	8,638	6,589	467	306	142	18	36	155	395	18	346	255	9	367
Other[1]	4,082	3,006	55	36	18	-	29	-	391	142	118	122	109	109
Life scientists														
Sex	137,483	45,896	52,320	47,134	4,719	467	3,649	3,927	18,232	367	9,124	2,028	360	1,580
Male	114,432	39,617	41,624	38,353	3,098	173	2,548	3,039	15,818	326	8,259	1,547	340	1,315
Female	23,051	6,279	10,696	8,781	1,622	294	1,101	888	2,414	40	865	482	19	266
Race	137,483	45,896	52,320	47,134	4,719	467	3,649	3,927	18,232	367	9,124	2,028	360	1,580
White	128,056	42,939	48,733	43,899	4,379	456	3,107	3,633	16,959	345	8,664	1,792	332	1,553
Black	2,542	583	992	860	120	11	100	-	671	21	144	31	-	-
Asian	5,197	1,853	1,975	1,916	59	-	272	275	372	-	199	197	28	27
Other[1]	1,688	521	620	458	162	-	171	19	230	-	118	9	-	-
Biologists														
Sex	85,306	27,182	31,235	26,989	4,141	105	1,454	2,241	14,131	193	6,197	1,478	213	982
Male	69,956	22,985	24,390	21,659	2,666	64	840	1,716	12,200	153	5,567	1,125	203	777
Female	15,350	4,197	6,845	5,330	1,475	40	614	525	1,931	40	629	353	10	205
Race	85,306	27,182	31,235	26,989	4,141	105	1,454	2,241	14,131	193	6,197	1,478	213	982
White	79,939	25,653	28,983	25,049	3,841	94	1,284	2,137	13,319	172	5,931	1,273	213	973
Black	2,079	501	920	799	120	11	71	-	462	21	93	10	-	-
Asian	2,418	704	1,059	1,040	19	-	99	85	169	-	107	185	-	9
Other[1]	871	323	273	111	162	-	-	19	181	-	65	9	-	-

See Footnotes at end of Table

Table B-8. Number of Employed Scientists and Engineers by Field, Sex, Race, and Type of Employer: 1982—continued

Field, Sex, and Race	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Biochemists														
Sex	9,626	2,625	5,210	5,192	19	-	496	392	726	-	112	-	-	62
Male	7,567	2,113	4,067	4,048	19	-	400	286	556	-	102	-	-	43
Female	2,059	512	1,143	1,143	-	-	96	106	170	-	10	-	-	20
Race	9,626	2,625	5,210	5,192	19	-	496	392	726	-	112	-	-	62
White	8,519	2,429	4,608	4,608	-	-	385	327	633	-	74	-	-	62
Black	121	21	41	41	-	-	20	-	20	-	20	-	-	-
Asian	910	175	494	475	19	-	84	65	74	-	18	-	-	-
Other[1]	76	-	67	67	-	-	9	-	-	-	-	-	-	-
Agricultural scientists														
Sex	27,836	12,953	8,418	7,643	540	236	-	602	2,520	-	2,567	348	125	303
Male	25,867	12,283	7,559	7,037	413	109	-	458	2,372	-	2,449	348	116	282
Female	1,970	670	859	606	127	127	-	144	147	-	119	-	9	21
Race	27,836	12,953	8,418	7,643	540	236	-	602	2,520	-	2,567	348	125	303
White	26,005	11,986	8,119	7,366	518	236	-	477	2,240	-	2,465	337	96	303
Black	228	28	10	10	-	-	-	-	148	-	32	10	-	-
Asian	1,157	782	124	102	21	-	-	124	83	-	37	-	28	-
Other[1]	446	198	165	165	-	-	-	-	49	-	35	-	-	-
Medical scientists														
Sex	14,715	3,137	7,456	7,310	20	127	1,696	692	855	173	248	203	21	232
Male	11,042	2,237	5,808	5,608	-	-	1,308	578	690	173	141	75	21	213
Female	3,672	900	1,649	1,703	20	127	389	113	166	-	108	129	-	20
Race	14,715	3,137	7,456	7,310	20	127	1,696	692	855	173	248	203	21	232
White	13,594	2,891	7,023	6,876	20	127	1,437	692	766	173	193	181	21	214
Black	114	33	21	21	-	-	9	-	42	-	-	10	-	-
Asian	712	213	298	298	-	-	90	-	46	-	37	12	-	18
Other[1]	295	-	115	115	-	-	161	-	-	-	18	-	-	-
Psychologists														
Sex	84,140	23,222	36,772	21,486	3,240	12,045	10,964	4,919	1,527	270	2,743	1,813	456	1,454
Male	53,934	16,545	22,964	15,002	1,850	6,113	6,285	2,753	1,144	250	1,836	1,221	293	643
Female	30,206	6,677	13,808	6,485	1,390	5,933	4,679	2,166	383	20	907	592	162	811
Race	84,140	23,222	36,772	21,486	3,240	12,045	10,964	4,919	1,527	270	2,743	1,813	456	1,454
White	79,870	22,434	34,693	20,422	2,900	11,371	10,520	4,637	1,445	267	2,494	1,556	456	1,369
Black	2,672	429	1,452	840	197	415	275	207	72	-	110	78	-	48
Asian	777	113	227	86	19	121	128	47	10	-	44	170	-	37
Other[1]	821	246	400	137	125	136	40	28	-	3	95	9	-	-
Social scientists														
Sex	116,100	44,702	41,361	36,769	4,136	456	3,007	7,578	8,225	36	4,203	3,287	1,532	2,168
Male	90,519	38,812	31,134	28,362	2,754	18	1,457	4,316	6,635	36	3,264	1,837	1,263	1,766
Female	25,581	5,890	10,227	8,408	1,382	438	1,550	3,262	1,590	-	939	1,450	269	403
Race	116,100	44,702	41,361	36,769	4,136	456	3,007	7,578	8,225	36	4,203	3,287	1,532	2,168
White	105,581	41,694	37,876	33,520	3,914	442	2,778	6,597	7,718	36	3,697	2,403	1,107	1,677
Black	5,507	1,136	1,691	1,664	13	14	50	715	275	-	363	837	93	349
Asian	3,273	1,151	1,275	1,230	45	-	39	119	150	-	122	-	275	142
Other[1]	1,739	721	520	356	164	-	142	148	82	-	21	47	57	-
Economists														
Sex	46,965	23,332	13,320	11,941	1,379	-	151	1,352	5,285	12	835	180	1,279	1,241
Male	42,339	21,539	12,115	11,185	929	-	131	1,020	4,503	12	691	100	1,064	1,166
Female	4,626	1,793	1,205	755	450	-	20	333	782	-	144	80	215	75
Race	46,965	23,332	13,320	11,941	1,379	-	151	1,352	5,285	12	835	180	1,279	1,241
White	43,853	22,155	12,471	11,105	1,366	-	141	1,223	5,009	12	744	107	908	1,084
Black	735	241	228	215	13	-	-	-	144	-	-	15	93	15
Asian	1,907	642	562	562	-	-	11	119	120	-	91	-	221	142
Other[1]	470	294	58	58	-	-	-	11	12	-	-	38	57	-
Sociologists / anthropologists														
Sex	22,993	7,540	10,901	9,757	990	153	378	1,643	814	-	875	207	184	453
Male	14,646	5,766	6,426	5,889	537	-	118	625	508	-	650	60	157	337
Female	8,347	1,774	4,474	3,868	453	153	259	1,019	305	-	225	147	27	117
Race	22,993	7,540	10,901	9,757	990	153	378	1,643	814	-	875	207	184	453
White	20,564	6,569	9,945	8,956	825	153	368	1,609	702	-	708	207	172	285
Black	1,513	645	429	429	-	-	-	23	79	-	166	-	-	166
Asian	425	174	209	197	12	-	9	-	21	-	-	-	12	-
Other[1]	492	151	318	165	153	-	-	11	12	-	-	-	-	-
Other social scientists														
Sex	46,142	13,830	17,141	15,072	1,767	303	2,478	4,582	2,127	24	2,494	2,921	70	474
Male	33,534	11,507	12,593	11,288	1,287	18	1,208	2,671	1,624	24	1,924	1,677	43	263
Female	12,608	2,323	4,548	3,784	480	284	1,271	1,911	503	-	570	1,244	27	211
Race	46,142	13,830	17,141	15,072	1,767	303	2,478	4,582	2,127	24	2,494	2,921	70	474
White	41,164	12,970	15,460	13,448	1,723	289	2,288	3,764	2,007	24	2,247	2,090	27	308
Black	3,260	250	1,034	1,020	-	14	50	692	52	-	195	822	-	166
Asian	941	336	504	471	33	-	19	-	9	-	31	-	43	-
Other[1]	777	275	144	133	11	-	142	126	59	-	21	9	-	-

NOTE: Detail may not add to total due to rounding.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-9. Number of Employed Scientists and Engineers by Field, Sex, Race, and Primary Work Activity: 1982

Field, Sex, and Race	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Reports, stat'l work, & computer appl.	Other	Not reported
		Total	Basic research	Applied research	Development and design	Total	Of research & develop.	Of other than R & D						
Total, all fields														
Sex	1,759,344	494,793	47,614	97,261	349,918	524,017	169,796	354,220	134,463	86,363	210,067	149,340	81,488	78,792
Male	1,598,067	457,124	38,994	84,924	333,206	498,935	161,619	337,316	106,763	80,237	198,714	118,923	62,983	74,387
Female	161,277	37,669	8,620	12,337	16,712	25,082	8,179	16,904	27,701	6,146	11,352	30,417	18,505	4,405
Race	1,759,344	494,793	47,614	97,261	349,918	524,017	169,796	354,220	134,463	86,363	210,067	149,340	81,488	78,792
White	1,606,064	443,148	42,654	87,169	313,325	488,057	156,980	331,076	123,481	78,123	188,655	135,297	76,721	71,581
Black	38,346	8,580	769	1,713	6,098	10,069	2,288	7,781	3,849	1,331	5,531	5,394	1,445	2,156
Asian	86,997	35,589	3,477	6,903	25,209	17,546	7,500	10,046	5,377	5,248	10,815	6,248	2,343	3,832
Other[1]	27,837	7,474	714	1,476	5,285	8,356	3,049	5,307	1,757	1,662	4,066	2,401	979	1,223
Physical scientists														
Sex	115,821	45,594	10,803	19,082	15,709	34,292	18,666	15,626	16,355	1,444	11,807	2,047	1,286	2,997
Male	104,673	40,582	9,654	16,555	14,373	32,978	18,198	14,780	14,569	1,294	9,827	1,514	1,125	2,784
Female	11,148	5,011	1,149	2,527	1,336	1,314	468	846	1,786	150	1,980	533	161	213
Race	115,821	45,594	10,803	19,082	15,709	34,292	18,666	15,626	16,355	1,444	11,807	2,047	1,286	2,997
White	104,202	40,112	9,563	16,556	13,993	31,696	17,442	14,254	15,395	1,426	9,849	1,886	1,149	2,648
Black	2,596	826	101	336	389	656	175	481	218	-	621	50	18	205
Asian	7,129	3,731	800	1,779	1,152	1,405	762	643	601	18	1,126	75	119	95
Other[1]	1,895	923	339	409	175	535	287	248	141	-	211	36	-	49
Chemists														
Sex	78,028	29,001	4,662	12,694	11,645	23,895	11,851	12,044	9,863	676	10,230	1,400	1,008	1,953
Male	68,873	24,994	3,994	10,573	10,428	22,826	11,476	11,351	8,548	559	8,337	1,010	857	1,740
Female	9,155	4,007	668	2,121	1,217	1,068	375	693	1,315	117	1,894	390	151	213
Race	78,028	29,001	4,662	12,694	11,645	23,895	11,851	12,044	9,863	676	10,230	1,400	1,008	1,953
White	69,177	25,019	4,048	10,757	10,214	21,741	10,818	10,923	9,275	676	8,444	1,317	881	1,823
Black	2,136	698	73	264	361	578	126	452	208	-	556	50	18	27
Asian	5,695	2,881	393	1,474	1,014	1,253	690	563	297	-	1,068	33	109	55
Other[1]	1,021	404	148	200	56	323	218	106	83	-	162	-	-	49
Physicists / astronomers														
Sex	25,802	10,355	4,716	3,441	2,198	7,431	5,272	2,158	5,680	319	625	359	226	807
Male	24,410	9,740	4,300	3,251	2,189	7,241	5,216	2,025	5,230	311	580	277	226	807
Female	1,392	615	417	191	8	190	57	133	451	8	45	82	-	-
Race	25,802	10,355	4,716	3,441	2,198	7,431	5,272	2,158	5,680	319	625	359	226	807
White	23,880	9,214	4,149	3,091	1,973	7,217	5,149	2,068	5,333	319	573	350	226	629
Black	330	65	28	19	19	59	40	20	9	-	18	-	-	178
Asian	1,061	624	349	180	95	109	38	71	304	-	34	9	-	-
Other[1]	531	452	190	151	111	45	45	-	34	-	-	-	-	-
Other physical scientists														
Sex	11,991	6,237	1,424	2,947	1,866	2,966	1,543	1,424	811	448	952	287	51	238
Male	11,390	5,848	1,361	2,732	1,756	2,910	1,506	1,403	792	423	910	227	42	238
Female	601	389	64	215	110	57	38	20	19	25	42	61	9	-
Race	11,991	6,237	1,424	2,947	1,866	2,966	1,543	1,424	811	448	952	287	51	238
White	11,165	5,880	1,368	2,706	1,805	2,738	1,475	1,263	787	430	832	218	42	238
Black	130	65	-	56	9	19	9	9	-	-	47	-	-	-
Asian	353	225	58	125	43	43	34	9	-	18	24	33	9	-
Other[1]	343	67	-	58	9	167	24	142	24	-	49	36	-	-
Mathematical scientists														
Sex	43,944	6,190	1,830	2,363	1,996	12,659	5,107	7,552	16,240	758	1,627	5,139	384	947
Male	35,893	5,203	1,772	1,890	1,542	10,914	4,117	6,797	13,335	406	1,457	3,443	255	879
Female	8,051	987	58	474	454	1,745	989	755	2,905	352	170	1,696	129	68
Race	43,944	6,190	1,830	2,363	1,996	12,659	5,107	7,552	16,240	758	1,627	5,139	384	947
White	39,450	5,504	1,568	2,212	1,724	11,969	4,481	7,488	14,382	569	1,479	4,507	375	664
Black	1,404	209	-	69	140	247	215	32	469	28	21	218	-	213
Asian	2,333	387	182	83	122	246	222	23	1,148	28	127	336	-	61
Other[1]	756	90	80	-	10	197	189	8	240	133	-	78	9	9
Mathematicians														
Sex	36,945	5,336	1,785	1,695	1,855	11,491	4,420	7,070	14,758	455	1,404	2,278	384	838
Male	30,900	4,587	1,727	1,426	1,434	9,988	3,625	6,363	12,144	176	1,369	1,601	255	780
Female	6,044	748	58	269	421	1,503	796	707	2,615	279	35	677	129	58
Race	36,945	5,336	1,785	1,695	1,855	11,491	4,420	7,070	14,758	455	1,404	2,278	384	838
White	33,282	4,765	1,532	1,631	1,602	11,026	4,007	7,018	12,910	281	1,275	2,060	375	589
Black	1,202	182	-	42	140	235	215	20	469	13	21	84	-	198
Asian	1,892	297	173	21	103	194	171	23	1,139	28	109	74	-	51
Other[1]	568	90	80	-	10	36	28	8	240	133	-	50	9	-
Statisticians														
Sex	7,000	854	45	669	141	1,168	686	482	1,481	303	223	2,861	-	109
Male	4,993	616	45	464	108	926	493	433	1,191	230	88	1,842	-	99
Female	2,007	238	-	205	33	242	194	48	290	73	135	1,019	-	10
Race	7,000	854	45	669	141	1,168	686	482	1,481	303	223	2,861	-	109
White	6,169	739	36	581	122	943	474	470	1,472	288	205	2,447	-	75
Black	202	26	-	26	-	12	-	12	-	15	-	134	-	15
Asian	440	90	9	62	19	52	52	-	9	-	18	261	-	10
Other[1]	189	-	-	-	-	161	161	-	-	-	-	19	-	9
Computer specialists														
Sex	168,578	30,155	857	3,060	26,238	28,453	10,585	17,868	4,546	9,775	4,313	85,942	1,977	3,417
Male	132,139	23,567	701	2,457	20,410	24,954	9,038	15,917	2,997	7,926	3,379	64,925	1,354	3,036
Female	36,438	6,588	157	603	5,828	3,498	1,547	1,951	1,549	1,848	934	21,017	623	381
Race	168,578	30,155	857	3,060	26,238	28,453	10,585	17,868	4,546	9,775	4,313	85,942	1,977	3,417
White	152,161	25,981	695	2,787	22,499	26,444	9,738	16,707	4,232	9,253	3,941	77,636	1,801	2,872
Black	5,604	625	-	61	564	590	189	401	205	175	210	3,618	121	60
Asian	7,944	2,954	163	212	2,579	993	373	620	99	270	152	3,229	44	203
Other[1]	2,869	595	-	-	595	425	284	141	10	76	10	1,459	12	282

See Footnotes at end of Table

Table B-9. Number of Employed Scientists and Engineers by Field, Sex, Race, and Primary Work Activity: 1982—continued

Field, Sex, and Race	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Reports, stat'l work,& computer appl.	Other	Not reported
		Total	Basic research	Applied research	Development and design	Total	Of research & develop.	Of other than R & D						
Environmental scientists														
Sex	42,407	17,305	3,538	9,264	4,504	11,080	4,510	6,570	2,701	3,697	3,843	2,458	370	953
Male	39,341	15,291	3,107	8,146	4,038	10,793	4,380	6,414	2,539	3,537	3,721	2,223	345	893
Female	3,066	2,015	431	1,118	466	287	131	156	162	160	122	235	25	60
Race	42,407	17,305	3,538	9,264	4,504	11,080	4,510	6,570	2,701	3,697	3,843	2,458	370	953
White	40,772	16,669	3,440	8,803	4,426	10,469	4,148	6,321	2,673	3,634	3,696	2,346	370	914
Black	325	105	-	82	23	132	23	109	9	-	22	57	-	-
Asian	900	416	62	331	23	238	166	72	18	45	107	55	-	21
Other[1]	410	115	36	47	31	241	173	68	-	18	18	-	-	18
Earth scientists														
Sex	35,850	14,212	2,078	7,989	4,144	9,759	3,875	5,884	2,440	3,482	3,295	1,504	334	825
Male	33,280	12,580	1,831	6,954	3,795	9,482	3,755	5,728	2,279	3,340	3,184	1,338	308	769
Female	2,571	1,631	247	1,035	349	276	120	156	162	142	112	166	26	56
Race	35,850	14,212	2,078	7,989	4,144	9,759	3,875	5,884	2,440	3,482	3,295	1,504	334	825
White	34,669	13,913	2,059	7,787	4,067	9,186	3,541	5,645	2,422	3,419	3,158	1,433	334	804
Black	246	61	-	37	23	132	23	109	-	-	22	33	-	-
Asian	616	160	19	117	23	229	166	62	18	45	107	37	-	21
Other[1]	318	78	-	47	31	212	145	68	-	18	9	-	-	-
Oceanographers														
Sex	1,649	1,019	380	441	198	385	215	169	46	-	95	65	-	40
Male	1,466	850	339	430	81	385	215	169	46	-	95	54	-	36
Female	183	169	41	11	117	-	-	-	-	-	-	11	-	4
Race	1,649	1,019	380	441	198	385	215	169	46	-	95	65	-	40
White	1,535	951	335	417	198	367	197	169	36	-	95	65	-	22
Black	33	23	-	23	-	-	-	-	9	-	-	-	-	-
Asian	9	9	9	-	-	-	-	-	-	-	-	-	-	-
Other[1]	73	36	36	-	-	18	18	-	-	-	-	-	-	18
Atmospheric scientists														
Sex	4,907	2,074	1,079	834	161	937	420	516	215	215	453	889	36	88
Male	4,595	1,860	937	762	161	926	410	516	215	197	442	830	36	88
Female	312	214	142	72	-	11	11	-	-	18	11	59	-	-
Race	4,907	2,074	1,079	834	161	937	420	516	215	215	453	889	36	88
White	4,568	1,806	1,046	599	161	916	410	506	215	215	444	848	36	88
Black	45	21	-	21	-	-	-	-	-	-	-	23	-	-
Asian	275	247	33	214	-	10	-	10	-	-	-	18	-	-
Other[1]	20	-	-	-	-	11	11	-	-	-	9	-	-	-
Engineers														
Sex	1,050,872	331,776	4,693	34,333	292,750	332,074	107,257	224,817	20,208	59,154	169,864	40,508	36,070	61,217
Male	1,027,135	323,638	4,566	33,188	285,885	328,681	106,099	222,582	18,939	58,160	165,026	37,579	35,282	59,830
Female	23,737	8,138	128	1,145	6,865	3,393	1,158	2,235	1,269	994	4,838	2,929	788	1,387
Race	1,050,872	331,776	4,693	34,333	292,750	332,074	107,257	224,817	20,208	59,154	169,864	40,508	36,070	61,217
White	955,972	296,313	3,910	29,384	263,018	309,172	98,897	210,275	17,871	52,672	153,455	36,474	34,093	55,923
Black	17,697	5,408	112	626	4,669	4,512	1,271	3,241	302	603	4,176	1,032	375	1,289
Asian	59,445	24,910	634	3,617	20,659	13,343	5,501	7,842	1,536	4,696	8,467	2,244	1,031	3,216
Other[1]	17,758	5,145	36	705	4,404	5,048	1,588	3,460	499	1,183	3,765	758	571	790
Aeronautical / Astronautical														
Sex	46,007	20,250	362	3,637	16,251	14,955	9,513	5,442	625	606	4,188	2,563	391	2,425
Male	45,158	19,743	345	3,471	15,926	14,846	9,445	5,401	607	600	4,082	2,480	383	2,417
Female	849	506	17	166	325	110	68	41	18	6	106	83	8	8
Race	46,007	20,250	362	3,637	16,251	14,955	9,513	5,442	625	606	4,188	2,563	391	2,425
White	43,070	18,441	351	3,143	14,946	14,413	9,181	5,232	625	596	3,893	2,386	381	2,332
Black	639	251	10	67	174	123	72	51	-	10	151	73	10	20
Asian	1,790	1,349	-	427	922	183	146	36	-	-	100	85	-	73
Other[1]	508	209	-	-	209	237	114	122	-	-	44	18	-	-
Chemical														
Sex	61,277	21,754	159	2,732	18,863	22,268	7,357	14,910	972	1,457	9,399	1,884	983	2,560
Male	58,849	20,739	147	2,567	18,026	22,018	7,297	14,721	931	1,419	8,745	1,583	922	2,492
Female	2,428	1,015	12	166	836	250	61	189	42	37	654	301	61	68
Race	61,277	21,754	159	2,732	18,863	22,268	7,357	14,910	972	1,457	9,399	1,884	983	2,560
White	54,906	18,577	92	1,939	16,546	20,824	6,775	14,050	827	1,343	8,452	1,789	784	2,310
Black	485	273	-	119	154	30	10	20	-	10	141	20	10	-
Asian	4,955	2,628	66	596	1,963	1,062	544	518	36	85	631	75	188	250
Other[1]	931	277	-	77	201	351	28	323	109	18	175	-	-	-
Civil														
Sex	145,955	25,129	265	2,094	22,769	52,154	6,316	45,839	2,353	22,180	27,857	5,629	1,950	8,703
Male	143,655	24,430	254	2,060	22,115	51,831	6,294	45,536	2,209	21,922	27,504	5,333	1,910	8,516
Female	2,301	699	11	34	654	323	22	301	145	258	353	296	39	188
Race	145,955	25,129	265	2,094	22,769	52,154	6,316	45,839	2,353	22,180	27,857	5,629	1,950	8,703
White	128,475	20,955	113	1,775	19,068	47,958	5,456	42,502	1,734	18,887	24,508	4,966	1,761	7,707
Black	2,128	369	10	20	339	907	61	846	20	194	368	102	33	133
Asian	12,186	3,275	142	247	2,886	2,432	469	1,964	599	2,486	2,147	491	155	602
Other[1]	3,166	530	-	52	476	856	331	527	-	613	834	70	-	261
Electrical / Electronic														
Sex	245,781	100,718	1,680	9,741	89,296	73,051	35,530	37,521	4,678	8,246	33,994	7,693	3,633	13,769
Male	242,350	99,068	1,654	9,566	87,848	72,776	35,410	37,366	4,474	8,166	33,467	7,458	3,483	13,458
Female	3,432	1,650	26	175	1,446	275	120	155	204	80	527	235	150	311
Race	245,781	100,718	1,680	9,741	89,296	73,051	35,530	37,521	4,678	8,246	33,994	7,693	3,633	13,769
White	220,133	88,874	1,315	8,399	79,159	67,456	32,584	34,873	4,339	7,296	29,730	6,861	3,370	12,407
Black	5,714	2,167	61	172	1,934	1,236	515	721	157	77	1,336	228	44	469
Asian	16,109	7,723	303	1,033	6,386	3,559	2,231	1,328	55	766	2,451	498	84	773
Other[1]	3,825	1,955	-	136	1,816	800	201	599	127	107	477	106	135	120

See Footnotes at end of Table

Table B-9. Number of Employed Scientists and Engineers by Field, Sex, Race, and Primary Work Activity: 1982—continued

Field, Sex, and Race	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Reports, stat'l work,& computer appl.	Other	Not reported
		Total	Basic research	Applied research	Development and design	Total	Of research & develop.	Of other than R & D						
Industrial														
Sex	67,937	12,796	34	459	12,302	24,410	3,335	21,075	1,425	2,248	17,005	4,649	1,721	3,884
Male	65,926	12,324	34	418	11,872	24,054	3,212	20,842	1,310	2,191	16,527	4,233	1,685	3,802
Female	2,011	472	-	41	430	357	124	233	115	56	477	416	36	81
Race	67,937	12,796	34	459	12,302	24,410	3,335	21,075	1,425	2,248	17,005	4,649	1,721	3,884
White	64,322	12,083	34	439	11,610	23,367	3,053	20,314	1,360	2,110	15,991	4,338	1,646	3,427
Black	1,061	208	-	20	188	242	20	221	10	31	324	123	20	102
Asian	1,947	383	-	-	383	697	244	454	36	73	505	133	18	121
Other[1]	607	141	-	-	141	104	18	86	18	34	185	54	36	34
Materials														
Sex	22,886	7,831	420	2,162	5,248	7,791	3,727	4,064	633	953	4,168	274	342	893
Male	22,321	7,589	420	2,090	5,078	7,687	3,640	4,047	633	943	4,016	250	342	860
Female	565	242	-	72	170	104	87	17	-	9	152	25	-	33
Race	22,886	7,831	420	2,162	5,248	7,791	3,727	4,064	633	953	4,168	274	342	893
White	20,653	6,655	420	1,783	4,451	7,420	3,546	3,875	623	879	3,774	264	324	714
Black	184	51	-	10	41	10	-	10	10	10	92	10	-	-
Asian	1,790	1,039	-	335	704	308	130	179	-	64	182	-	18	179
Other[1]	258	86	-	34	52	52	52	-	-	-	120	-	-	-
Mechanical														
Sex	206,943	83,225	685	5,412	77,128	68,035	21,504	46,531	4,669	7,266	27,248	3,487	2,835	10,178
Male	203,411	81,758	677	5,294	75,787	67,448	21,232	46,217	4,277	7,162	26,705	3,264	2,827	9,969
Female	3,532	1,468	8	118	1,341	586	272	314	392	104	543	223	8	208
Race	206,943	83,225	685	5,412	77,128	68,035	21,504	46,531	4,669	7,266	27,248	3,487	2,835	10,178
White	190,240	75,926	595	4,717	70,614	63,855	20,063	43,793	4,015	6,589	24,629	3,057	2,734	9,435
Black	2,262	985	-	102	883	473	153	320	31	20	557	52	10	153
Asian	10,888	5,352	55	471	4,827	2,686	748	1,937	472	553	1,085	200	91	448
Other[1]	3,553	983	36	122	824	1,020	539	481	151	104	977	177	-	141
Mining														
Sex	7,334	1,435	46	356	1,033	2,253	530	1,723	260	744	1,766	641	60	174
Male	7,226	1,405	46	345	1,013	2,245	528	1,717	252	734	1,736	622	60	174
Female	107	31	-	11	20	8	3	6	8	11	30	19	-	-
Race	7,334	1,435	46	356	1,033	2,253	530	1,723	260	744	1,766	641	60	174
White	7,033	1,381	46	338	997	2,116	530	1,585	260	708	1,730	641	60	138
Black	28	18	-	18	-	10	-	10	-	-	-	-	-	-
Asian	109	18	-	-	18	18	-	18	-	36	18	-	-	18
Other[1]	163	18	-	-	18	109	-	109	-	-	18	-	-	18
Nuclear														
Sex	9,657	2,677	78	535	2,064	3,587	1,352	2,235	151	513	1,513	379	218	620
Male	9,520	2,618	78	502	2,038	3,579	1,344	2,235	143	480	1,504	359	218	620
Female	137	59	-	33	26	8	8	-	8	33	8	20	-	-
Race	9,657	2,677	78	535	2,064	3,587	1,352	2,235	151	513	1,513	379	218	620
White	8,705	2,291	68	462	1,761	3,400	1,314	2,067	151	440	1,260	361	218	583
Black	82	20	10	-	10	41	20	20	-	-	20	-	-	-
Asian	730	365	-	73	293	128	18	109	-	55	128	18	-	36
Other[1]	141	-	-	-	-	18	-	18	-	18	104	-	-	-
Petroleum														
Sex	14,165	2,449	119	543	1,787	4,395	769	3,626	122	1,242	3,403	511	478	1,565
Male	13,782	2,344	111	514	1,720	4,307	769	3,538	114	1,225	3,315	434	478	1,565
Female	383	105	8	29	67	88	-	88	8	17	88	77	-	-
Race	14,165	2,449	119	543	1,787	4,395	769	3,626	122	1,242	3,403	511	478	1,565
White	13,200	2,224	119	507	1,598	4,307	735	3,572	122	1,062	3,236	464	351	1,434
Black	139	51	-	-	51	10	-	10	-	-	33	10	-	34
Asian	302	138	-	37	101	-	-	-	-	36	55	36	-	36
Other[1]	524	36	-	-	36	78	34	44	-	143	79	-	127	61
Other														
Sex	222,930	53,511	845	6,660	46,006	59,175	17,322	41,852	4,319	13,699	39,323	12,796	23,459	16,646
Male	214,937	51,621	799	6,360	44,461	57,890	16,929	40,961	3,990	13,318	37,423	11,564	22,974	16,157
Female	7,993	1,890	46	299	1,545	1,284	394	891	329	382	1,899	1,234	485	489
Race	222,930	53,511	845	6,660	46,006	59,175	17,322	41,852	4,319	13,699	39,323	12,796	23,459	16,646
White	205,235	48,908	757	5,884	42,267	54,055	15,662	38,393	3,815	12,761	36,252	11,546	22,463	15,435
Black	4,975	1,034	20	97	916	1,429	418	1,011	73	250	1,153	412	246	377
Asian	8,638	2,660	67	398	2,195	2,270	973	1,297	339	542	1,165	506	477	679
Other[1]	4,082	910	-	282	628	1,420	270	1,151	91	147	752	333	273	156
Life scientists														
Sex	137,483	42,501	19,659	17,730	5,111	43,899	12,203	31,696	24,122	3,972	11,200	3,262	5,580	2,928
Male	114,432	33,460	14,865	14,479	4,116	39,463	11,294	28,169	19,140	3,769	9,667	2,168	4,281	2,464
Female	23,051	9,040	4,794	3,251	995	4,436	909	3,527	4,982	203	1,533	1,094	1,299	464
Race	137,483	42,501	19,659	17,730	5,111	43,899	12,203	31,696	24,122	3,972	11,200	3,262	5,580	2,928
White	128,056	38,927	17,775	16,823	4,329	41,671	11,715	29,956	22,257	3,874	10,302	3,131	5,165	2,729
Black	2,542	863	479	249	134	700	104	596	611	18	175	52	73	50
Asian	5,197	2,327	1,303	434	590	765	346	419	908	71	683	65	292	86
Other[1]	1,688	384	102	223	59	762	38	725	345	9	41	34	50	62
Biologists														
Sex	85,306	23,993	11,404	9,643	2,946	28,667	7,488	21,179	16,182	3,171	6,530	2,593	2,342	1,829
Male	69,956	18,492	8,483	7,660	2,349	25,425	6,725	18,700	12,571	3,015	5,565	1,569	1,905	1,413
Female	15,350	5,501	2,922	1,982	597	3,241	763	2,479	3,612	156	965	1,024	436	415
Race	85,306	23,993	11,404	9,643	2,946	28,667	7,488	21,179	16,182	3,171	6,530	2,593	2,342	1,829
White	79,939	22,144	10,262	9,260	2,621	27,095	7,167	19,928	15,017	3,143	6,070	2,531	2,223	1,715
Black	2,079	668	430	177	62	607	63	544	570	-	142	-	41	50
Asian	2,418	984	641	139	204	470	230	240	529	28	302	28	46	31
Other[1]	871	197	71	67	59	495	28	467	66	-	16	34	32	31

See Footnotes at end of Table

Table B-9. **Number of Employed Scientists and Engineers by Field, Sex, Race, and Primary Work Activity: 1982**—continued

Field, Sex, and Race	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Reports, stat'l work,& computer appl.	Other	Not reported
		Total	Basic research	Applied research	Development and design	Total	Of research & develop.	Of other than R & D						
Biochemists														
Sex	9,626	5,877	4,501	1,090	286	1,517	869	647	1,453	10	301	40	367	62
Male	7,567	4,750	3,630	882	238	1,262	840	422	1,000	–	265	31	207	52
Female	2,059	1,127	872	208	47	254	29	225	452	10	36	10	160	10
Race	9,626	5,877	4,501	1,090	286	1,517	869	647	1,453	10	301	40	367	62
White	8,519	5,166	4,008	927	231	1,386	778	607	1,263	10	301	31	310	53
Black	121	50	29	–	21	51	30	21	10	–	–	–	9	–
Asian	910	565	434	117	34	80	61	19	179	–	–	9	48	9
Other[1]	76	76	31	46	–	–	–	–	–	–	–	–	–	–
Agricultural scientists														
Sex	27,836	7,342	863	5,115	1,364	10,316	2,585	7,731	2,741	689	4,001	525	1,392	830
Male	25,867	6,352	656	4,490	1,206	9,976	2,508	7,468	2,576	671	3,709	505	1,258	820
Female	1,970	990	207	626	157	340	77	263	165	18	292	20	135	10
Race	27,836	7,342	863	5,115	1,364	10,316	2,585	7,731	2,741	689	4,001	525	1,392	830
White	26,006	6,723	753	4,837	1,133	9,039	2,558	7,282	2,655	644	3,595	485	1,274	790
Black	228	103	21	51	32	32	–	32	21	18	21	31	3	–
Asian	1,157	408	90	120	199	188	27	161	40	18	360	9	115	18
Other[1]	446	107	–	107	–	257	–	257	26	9	26	–	–	21
Medical scientists														
Sex	14,715	5,288	2,890	1,882	516	3,399	1,260	2,139	3,745	102	368	124	1,479	208
Male	11,042	3,866	2,096	1,447	323	2,799	1,220	1,579	2,993	83	129	83	911	179
Female	3,672	1,423	794	435	194	600	40	560	752	20	240	41	568	29
Race	14,715	5,288	2,890	1,882	516	3,399	1,260	2,139	3,745	102	368	124	1,479	208
White	13,594	4,895	2,753	1,799	343	3,351	1,212	2,139	3,321	78	336	84	1,358	171
Black	114	41	–	21	20	11	11	–	10	–	12	21	20	–
Asian	712	350	137	58	154	27	27	–	161	24	21	19	83	27
Other[1]	295	3	–	3	–	10	10	–	254	–	–	–	18	10
Psychologists														
Sex	84,140	6,725	2,557	2,910	1,257	17,919	3,576	14,343	19,197	4,555	2,778	1,212	28,987	2,767
Male	53,934	4,306	1,600	1,897	808	13,382	2,488	10,894	12,899	2,908	1,655	872	16,161	1,752
Female	30,205	2,419	957	1,013	449	4,537	1,087	3,450	6,298	1,647	1,123	340	12,826	1,014
Race	84,140	6,725	2,557	2,910	1,257	17,919	3,576	14,343	19,197	4,555	2,778	1,212	28,987	2,767
White	79,870	6,328	2,428	2,666	1,234	16,841	3,462	13,379	18,467	4,220	2,681	1,170	27,499	2,664
Black	2,672	213	11	188	14	845	49	795	432	224	88	42	754	75
Asian	777	75	9	56	9	103	64	38	118	28	–	–	425	28
Other[1]	821	109	109	–	–	131	–	131	181	83	9	–	309	–
Social scientists														
Sex	116,100	14,548	3,677	8,518	2,354	43,641	7,895	35,747	31,095	3,028	4,634	8,753	6,834	3,566
Male	90,519	11,077	2,729	6,313	2,035	37,769	6,005	31,764	22,345	2,237	3,983	6,180	4,181	2,748
Female	25,581	3,471	947	2,205	319	5,872	1,889	3,983	8,751	790	652	2,573	2,653	818
Race	116,100	14,548	3,677	8,518	2,354	43,641	7,895	35,747	31,095	3,028	4,634	8,753	6,834	3,566
White	105,581	13,315	3,275	7,936	2,104	39,794	7,097	32,697	28,204	2,474	4,252	8,147	6,260	3,126
Black	5,507	330	65	100	165	2,377	242	2,135	1,803	283	219	326	104	295
Asian	3,273	789	324	391	74	453	65	388	946	92	[illegible]	245	433	182
Other[1]	1,739	114	12	92	11	1,017	490	527	343	179	[illegible]	35	26	12
Economists														
Sex	46,965	6,581	1,246	4,490	844	17,119	2,928	14,191	10,447	1,844	1,976	5,596	1,696	1,707
Male	42,339	5,499	970	3,796	734	16,715	2,764	13,952	9,324	1,544	1,922	4,169	1,534	1,632
Female	4,626	1,081	277	695	110	404	165	239	1,123	300	53	1,427	162	75
Race	46,965	6,581	1,246	4,490	844	17,119	2,928	14,191	10,447	1,844	1,976	5,596	1,696	1,707
White	43,853	6,020	1,070	4,162	788	16,418	2,768	13,649	9,662	1,691	1,941	5,175	1,405	1,542
Black	735	106	28	65	13	157	51	106	207	[illegible]	24	188	–	–
Asian	1,907	375	136	196	43	260	43	217	543	64	11	211	291	153
Other[1]	470	80	12	68	–	284	67	218	34	37	–	23	–	12
Sociologists / anthropologists														
Sex	22,993	3,863	1,597	2,018	248	7,979	1,798	6,181	7,776	329	946	1,062	467	573
Male	14,646	2,271	957	1,113	201	5,573	921	4,652	4,516	299	814	637	293	244
Female	8,347	1,592	640	905	47	2,407	877	1,529	3,260	30	132	424	173	329
Race	22,993	3,863	1,597	2,018	248	7,979	1,798	6,181	7,776	329	946	1,062	467	573
White	20,564	3,584	1,396	1,963	225	7,130	1,516	5,614	7,169	147	767	974	319	473
Black	1,513	36	25	12	–	549	–	549	388	181	168	76	15	100
Asian	425	220	177	31	12	18	–	18	54	–	–	–	133	–
Other[1]	492	23	–	12	11	282	282	–	165	–	11	12	–	–
Other social scientists														
Sex	46,142	4,105	833	2,010	1,262	18,543	3,168	15,375	12,873	855	1,713	2,095	4,672	1,286
Male	33,534	3,307	803	1,404	1,100	15,481	2,321	13,160	8,505	393	1,246	1,374	2,354	871
Female	12,606	798	30	606	162	3,062	847	2,215	4,368	460	466	721	2,318	415
Race	46,142	4,105	833	2,010	1,262	18,543	3,168	15,375	12,873	855	1,713	2,095	4,672	1,286
White	41,164	3,711	809	1,812	1,091	16,246	2,813	13,433	11,373	636	1,544	1,998	4,545	1,111
Black	3,260	188	13	23	152	1,671	191	1,480	1,007	49	26	63	89	166
Asian	941	194	11	164	19	175	23	152	350	28	142	33	9	9
Other[1]	777	12	–	12	–	451	142	309	144	142	–	–	28	–

NOTE: Detail may not add to total due to rounding.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-10. Number of Employed Scientists and Engineers by Field, Highest Degree, and Type of Employer: 1982

Field and Highest Degree	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Total, all fields	1,739,344	1,203,987	224,382	185,399	24,446	14,617	22,529	36,674	132,532	3,070	50,364	31,584	7,444	46,788
Doctorate	260,032	73,318	141,520	131,539	6,678	3,303	7,028	9,676	18,079	482	3,120	1,482	1,870	3,496
Professional/medical	9,843	4,636	3,280	3,023	237	-	384	486	400	130	165	175	32	152
Master's	437,237	285,756	58,566	34,485	14,354	9,726	9,371	16,220	36,657	892	13,670	8,702	1,644	5,760
Bachelor's	861,477	714,734	18,810	14,727	2,596	1,287	5,190	9,200	71,687	1,499	27,938	17,156	3,123	12,338
Associate	35,500	30,620	440	224	183	34	112	198	1,136	34	1,551	754	264	391
Other	486	364	-	-	-	-	-	-	-	-	102	-	-	-
No degree	134,769	94,547	1,965	1,401	398	166	444	894	4,573	52	3,819	3,314	510	24,651
Physical scientists	115,821	69,336	26,782	24,202	2,541	40	660	3,742	10,752	27	1,822	1,017	237	1,465
Doctorate	48,573	20,394	20,600	19,585	987	18	75	2,222	4,303	18	70	74	170	646
Professional/medical	161	109	-	-	-	-	-	-	52	-	-	-	-	-
Master's	25,086	16,176	4,251	2,860	1,382	9	419	792	2,197	-	480	210	58	522
Bachelor's	42,002	32,657	1,931	1,757	162	13	166	728	4,200	9	1,272	732	9	297
Chemists	78,029	53,641	14,662	12,819	1,821	22	533	1,306	4,726	27	1,356	960	84	843
Doctorate	27,770	14,295	11,229	10,266	963	-	17	436	1,221	18	49	74	17	412
Professional/medical	118	109	-	-	-	-	-	-	9	-	-	-	-	-
Master's	15,785	11,848	1,815	1,053	754	9	352	532	807	-	273	167	58	134
Bachelor's	34,356	27,490	1,617	1,501	104	13	165	335	2,689	9	1,035	706	9	297
Physicists / astronomers	25,802	9,808	10,348	9,617	612	18	124	1,574	3,385	-	68	10	36	545
Doctorate	15,450	3,581	8,073	8,020	34	18	58	1,458	2,069	-	-	-	36	175
Professional/medical	34	-	-	-	-	-	-	-	34	-	-	-	-	-
Master's	5,795	2,675	1,670	1,351	520	-	66	58	743	-	-	10	-	370
Bachelor's	4,523	3,552	305	246	58	-	-	58	539	-	68	-	-	-
Other physical scientists	11,991	5,986	1,874	1,765	109	-	-	862	2,642	-	377	57	117	77
Doctorate	5,353	2,519	1,298	1,298	-	-	-	326	1,013	-	21	-	117	58
Professional/medical	9	-	-	-	-	-	-	-	9	-	-	-	-	-
Master's	3,506	1,853	566	457	109	-	-	201	648	-	167	33	-	18
Bachelor's	3,123	1,614	10	10	-	-	-	335	972	-	189	24	-	-
Mathematical scientists	43,944	17,398	20,090	16,834	3,354	101	202	698	4,096	27	401	155	99	686
Doctorate	16,531	1,959	13,272	12,805	657	9	36	254	611	-	27	18	18	337
Professional/medical	93	29	-	-	-	-	-	-	54	-	9	-	-	-
Master's	14,641	6,214	5,864	3,323	2,458	83	49	293	1,676	27	102	74	81	181
Bachelor's	12,679	9,196	954	706	239	9	117	151	1,755	-	273	63	-	168
Mathematicians	36,945	14,910	17,740	14,323	3,337	80	117	508	2,814	-	91	92	44	629
Doctorate	14,085	1,360	11,811	11,153	657	-	-	189	361	-	-	-	18	337
Professional/medical	72	18	-	-	-	-	-	-	54	-	-	-	-	-
Master's	11,473	5,019	5,010	2,499	2,441	71	-	186	999	-	47	56	27	142
Bachelor's	11,315	8,523	919	671	239	9	117	133	1,394	-	43	36	-	150
Statisticians	7,000	2,490	2,351	2,312	18	21	85	190	1,281	27	400	63	56	57
Doctorate	2,446	909	1,461	1,452	-	9	36	85	230	-	27	18	-	-
Professional/medical	21	12	-	-	-	-	-	-	-	-	9	-	-	-
Master's	3,169	1,195	854	825	18	12	49	107	690	27	134	18	55	39
Bachelor's	1,364	674	36	36	-	-	-	18	361	-	229	27	-	18
Computer specialists	168,579	133,047	9,560	7,054	1,770	736	1,969	3,159	11,663	283	4,147	2,058	615	2,089
Doctorate	7,315	3,803	2,498	2,316	74	109	78	272	294	-	82	92	196	-
Professional/medical	355	234	109	109	-	-	-	-	11	-	-	-	-	-
Master's	48,277	37,329	3,682	2,315	1,049	317	506	1,214	3,394	247	938	455	76	439
Bachelor's	112,631	91,684	3,271	2,314	647	309	1,383	1,673	7,954	36	3,128	1,511	343	1,650
Environmental scientists	[illegible]	26,442	5,328	4,713	616	-	-	376	7,338	152	1,962	181	109	519
Doctorate	9,516	2,328	3,686	3,495	194	-	-	114	1,894	52	290	34	18	98
Professional/medical	200	200	-	-	-	-	-	-	-	-	-	-	-	-
Master's	15,276	10,283	1,216	794	422	-	-	120	2,395	54	850	58	36	265
Bachelor's	18,416	13,634	425	425	-	-	-	141	3,049	45	823	89	54	156
Earth scientists	35,850	24,861	3,937	3,349	589	-	-	121	4,451	-	1,853	111	73	442
Doctorate	6,327	2,026	2,769	2,602	167	-	-	54	1,167	-	254	-	18	40
Professional/medical	200	200	-	-	-	-	-	-	-	-	-	-	-	-
Master's	13,090	9,635	980	558	422	-	-	45	1,312	-	795	40	36	247
Bachelor's	16,234	13,001	189	189	-	-	-	21	1,972	-	805	71	18	156
Oceanographers	1,649	353	526	517	9	-	-	45	671	36	-	-	-	18
Doctorate	467	54	218	208	9	-	-	24	153	18	-	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	720	121	200	200	-	-	-	21	341	18	-	-	-	18
Bachelor's	463	178	109	109	-	-	-	-	176	-	-	-	-	-
Atmospheric scientists	4,907	1,229	865	847	18	-	-	209	2,216	115	108	70	36	58
Doctorate	1,722	247	702	684	18	-	-	36	574	34	36	34	-	58
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	1,466	527	36	36	-	-	-	53	741	36	54	18	-	-
Bachelor's	1,720	455	127	127	-	-	-	120	901	45	18	[illegible]	36	-

See Footnotes at end of Table

Table B-10. Number of Employed Scientists and Engineers by Field, Highest Deegree, and Type of Employer: 1982—continued

Field and Highest Degree	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Engineers	1,050,872	843,862	32,149	27,407	4,078	672	2,056	12,256	70,769	1,910	25,892	21,024	4,036	36,829
Doctorate	45,530	24,482	14,410	14,126	284	-	52	1,991	3,236	143	205	224	285	492
Professional/medical	2,816	1,911	328	218	109	-	-	68	128	-	18	154	10	-
Master's	230,827	185,863	9,035	6,613	2,234	169	451	4,953	18,593	400	4,057	3,931	488	3,025
Bachelor's	601,144	506,105	5,971	4,825	863	283	997	4,152	43,103	1,281	16,140	12,648	2,479	8,269
Associate	35,500	30,020	440	224	183	34	112	198	1,136	34	1,551	754	264	391
Other	486	384	-	-	-	-	-	-	-	-	102	-	-	-
No degree	134,769	94,547	1,965	1,401	398	186	444	894	4,573	52	3,819	3,314	510	24,851
Aeronautical / Astronautical	46,007	34,918	1,706	1,672	34	-	-	570	7,182	34	34	211	102	1,281
Doctorate	2,812	1,582	782	782	-	-	-	116	299	-	-	-	34	-
Professional/medical	320	320	-	-	-	-	-	-	-	-	-	-	-	-
Master's	13,302	9,897	744	744	-	-	-	232	2,362	-	-	34	-	34
Bachelor's	22,030	17,208	121	121	-	-	-	222	3,045	34	34	143	34	289
Associate	1,354	1,228	10	10	-	-	-	-	116	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	6,189	4,683	49	15	34	-	-	-	431	-	-	34	34	958
Chemical	61,277	54,946	1,906	1,671	234	-	-	905	1,486	52	295	195	86	1,439
Doctorate	6,258	4,599	1,086	979	109	-	-	213	208	-	-	-	-	152
Professional/medical	120	78	-	-	-	-	-	-	8	-	-	34	-	-
Master's	14,877	13,413	287	162	126	-	-	540	288	18	-	109	-	221
Bachelor's	37,290	35,059	421	421	-	-	-	116	982	34	261	52	86	296
Associate	381	381	-	-	-	-	-	-	-	-	-	-	-	-
Other	34	34	-	-	-	-	-	-	-	-	-	-	-	-
No degree	2,316	1,360	109	109	-	-	-	34	-	-	34	-	-	760
Civil	145,957	90,455	3,792	3,397	265	129	102	841	13,268	353	17,763	13,601	768	5,112
Doctorate	4,427	1,917	1,758	1,758	-	-	-	143	271	109	61	136	-	30
Professional/medical	274	102	-	-	-	-	-	34	34	-	18	86	-	-
Master's	31,036	21,022	1,530	1,316	203	10	-	111	3,223	177	2,011	2,400	120	442
Bachelor's	91,992	59,841	450	313	18	119	34	384	8,792	68	11,743	8,233	562	1,875
Associate	3,464	1,559	44	-	44	-	34	-	112	-	1,149	499	-	68
Other	278	177	-	-	-	-	-	-	-	-	102	-	-	-
No degree	14,486	5,837	10	10	-	-	34	170	836	-	2,679	2,146	86	2,697
Electrical / Electronic	246,781	200,369	7,611	6,492	975	44	273	4,217	20,990	503	1,031	1,821	814	8,493
Doctorate	9,767	5,059	2,916	2,898	18	-	-	634	1,044	-	-	34	34	46
Professional/medical	674	531	109	109	-	-	-	34	-	-	-	-	-	-
Master's	57,551	48,151	1,598	1,032	567	-	42	1,343	4,956	10	293	239	86	862
Bachelor's	139,806	118,053	1,990	1,678	312	-	153	1,824	13,341	493	470	1,165	574	1,743
Associate	9,961	8,858	224	146	44	34	34	130	427	-	34	68	86	120
Other	68	68	-	-	-	-	-	-	-	-	-	-	-	-
No degree	28,135	10,638	674	630	34	10	44	252	1,222	-	234	315	34	5,722
Industrial	67,937	60,864	1,171	1,026	145	-	435	397	2,437	52	162	505	71	2,055
Doctorate	1,218	484	734	734	-	-	-	-	-	-	-	-	-	-
Professional/medical	86	52	-	-	-	-	-	-	34	-	-	-	-	-
Master's	12,205	10,902	303	177	127	-	179	34	583	-	34	68	34	68
Bachelor's	40,632	37,553	91	81	10	-	203	255	1,585	44	128	403	37	334
Associate	2,420	2,265	42	34	8	-	10	-	34	-	-	-	-	68
Other	8	8	-	-	-	-	-	-	-	-	-	-	-	-
No degree	11,367	9,366	-	-	-	-	42	108	201	8	-	34	-	1,585
Materials	22,886	19,181	1,670	1,652	18	-	-	214	1,240	-	71	34	127	368
Doctorate	3,312	1,926	944	944	-	-	-	18	406	-	-	-	18	-
Professional/medical	177	177	-	-	-	-	-	-	-	-	-	-	-	-
Master's	5,806	4,846	405	405	-	-	-	86	282	-	-	-	-	8
Bachelor's	11,547	10,495	211	211	-	-	-	102	552	-	37	-	109	42
Associate	420	401	18	-	18	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	1,823	1,336	92	92	-	-	-	8	-	-	34	34	-	318
Mechanical	206,943	179,611	7,136	5,210	1,671	255	410	1,906	9,587	170	652	1,172	424	5,896
Doctorate	6,341	2,868	2,601	2,601	-	-	-	367	359	34	-	-	-	112
Professional/medical	336	305	-	-	-	-	-	-	-	-	-	34	-	-
Master's	43,551	37,391	2,378	1,354	916	109	-	1,030	2,078	-	52	182	36	403
Bachelor's	127,192	115,004	1,541	1,011	428	102	342	407	6,349	68	582	880	244	1,795
Associate	6,447	5,920	34	-	34	-	-	-	170	34	18	34	102	136
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	23,073	18,122	582	244	294	44	68	102	631	34	-	42	42	3,450
Mining	7,334	6,249	311	303	8	-	-	109	307	-	158	52	34	114
Doctorate	419	97	303	303	-	-	-	-	18	-	-	-	-	-
Professional/medical	18	-	-	-	-	-	-	-	18	-	-	-	-	-
Master's	751	721	-	-	-	-	-	-	-	-	18	-	-	12
Bachelor's	5,630	4,982	8	-	8	-	-	109	237	-	140	52	34	68
Associate	71	71	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	446	378	-	-	-	-	-	-	34	-	-	-	-	34
Nuclear	9,657	6,771	203	203	-	-	34	207	1,725	-	18	109	177	414
Doctorate	838	497	102	102	-	-	-	36	169	-	-	-	34	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	3,612	2,786	68	68	-	-	34	112	612	-	-	-	-	-
Bachelor's	4,220	3,045	34	34	-	-	-	58	813	-	18	109	143	-
Associate	146	68	-	-	-	-	-	-	78	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	841	375	-	-	-	-	-	-	52	-	-	-	-	414
Petroleum	14,365	12,252	66	66	-	-	-	109	379	-	211	-	143	1,006
Doctorate	672	459	46	46	-	-	-	-	58	-	-	-	-	109
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	2,024	1,769	-	-	-	-	-	109	27	-	34	-	34	52
Bachelor's	9,852	8,858	20	20	-	-	-	-	284	-	177	-	109	205
Associate	102	102	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	1,715	1,064	-	-	-	-	-	-	10	-	-	-	-	640

See Footnotes at end of Table

Table B-10. Number of Employed Scientists and Engineers by Field, Highest Deegree, and Type of Employer: 1982—continued

Field and Highest Degree	Total	Business/industry	Educational institutions: Total	Educational institutions: 4-year colleges or univ.	Educational institutions: 2-year colleges	Educational institutions: Elem. & sec. schools	Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
Other	222,930	178,557	6,657	5,714	719	264	823	2,981	12,240	746	5,328	3,446	1,292	10,660
Doctorate	9,465	5,003	3,137	2,980	157	-	52	463	406	-	144	52	165	43
Professional/medical	609	347	218	109	109	-	-	-	34	-	-	-	10	-
Master's	46,310	34,985	1,722	1,356	297	70	196	1,357	4,201	195	1,645	899	179	922
Bachelor's	111,354	96,005	1,063	835	85	82	285	874	6,244	541	2,551	1,632	549	1,612
Associate	10,716	9,766	68	34	34	-	34	68	200	-	350	154	78	-
Other	96	96	-	-	-	-	-	-	-	-	-	-	-	-
No degree	44,380	32,344	449	301	37	112	256	220	1,156	10	638	709	314	8,083
Life scientists	137,483	45,896	52,320	47,134	4,719	467	3,649	3,827	18,432	367	9,124	2,028	360	1,541
Doctorate	51,025	7,118	35,485	33,605	1,760	120	994	1,706	4,157	55	863	51	203	380
Professional/medical	4,757	872	2,840	2,512	128	-	364	348	179	130	29	21	21	152
Master's	32,336	10,237	10,385	7,813	2,500	82	1,219	1,065	4,802	53	3,449	933	43	342
Bachelor's	49,365	27,670	3,800	3,203	331	265	1,072	805	9,294	128	4,783	1,023	92	667
Biologists	85,302	27,182	31,235	26,989	4,141	105	1,464	2,241	14,131	193	6,197	1,478	213	982
Doctorate	30,236	3,661	21,915	20,307	1,597	11	300	986	2,438	34	487	9	142	266
Professional/medical	558	236	303	195	109	-	10	-	-	-	10	-	-	-
Master's	21,153	5,871	6,787	4,419	2,296	72	534	885	3,786	31	2,305	621	21	309
Bachelor's	33,355	17,415	2,230	2,068	140	21	610	369	7,905	128	3,395	847	49	407
Biochemists	9,626	2,625	5,210	5,192	18	-	499	393	725	-	112	-	-	62
Doctorate	7,485	1,296	4,764	4,755	9	-	331	353	617	-	61	-	-	62
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	1,561	883	320	311	9	-	168	40	108	-	41	-	-	-
Bachelor's	581	446	126	126	-	-	-	-	-	-	9	-	-	-
Agricultural scientists	27,836	12,953	8,418	7,843	540	236	-	602	2,520	-	2,567	348	125	303
Doctorate	7,497	1,401	4,871	4,808	154	109	-	164	756	-	213	10	61	21
Professional/medical	109	-	-	-	-	-	-	-	-	-	-	-	-	109
Master's	6,931	2,555	2,556	2,361	195	-	-	31	527	-	1,035	173	21	33
Bachelor's	13,300	8,996	991	674	191	127	-	407	1,237	-	1,319	164	43	140
Medical scientists	14,716	3,137	7,456	7,310	20	127	1,696	692	856	173	248	203	21	232
Doctorate	5,805	780	3,935	3,935	-	-	364	206	346	21	102	32	-	40
Professional/medical	4,069	836	2,337	2,317	20	-	354	348	179	130	19	21	21	43
Master's	2,692	929	732	722	-	10	517	109	179	21	67	138	-	-
Bachelor's	2,128	611	453	336	-	117	462	29	151	-	60	12	-	150
Psychologists	84,140	25,222	36,772	21,486	3,240	12,045	10,964	4,918	1,527	270	2,743	1,813	456	1,454
Doctorate	42,294	9,362	21,927	17,387	1,492	3,047	5,717	1,555	1,011	194	958	591	121	857
Professional/medical	64	-	64	64	-	-	-	-	-	-	-	-	-	-
Master's	32,379	8,934	13,977	3,701	1,631	8,645	4,491	3,166	426	75	1,339	1,092	281	597
Bachelor's	9,404	6,926	804	334	117	353	756	197	90	-	446	129	54	-
Social scientists	116,100	44,702	41,361	36,769	4,136	456	3,007	7,578	8,225	36	4,203	3,287	1,532	2,168
Doctorate	40,249	3,864	29,641	28,420	1,220	-	74	1,559	2,572	-	624	378	860	679
Professional/medical	1,599	1,283	121	121	-	-	-	51	36	-	108	-	-	-
Master's	38,415	12,694	10,145	7,065	2,678	402	2,233	4,618	3,375	36	2,397	1,948	581	389
Bachelor's	35,837	26,861	1,456	1,163	238	54	701	1,351	2,243	-	1,074	961	92	1,101
Economists	46,965	23,332	13,320	11,941	1,379	-	151	1,352	5,286	12	835	160	1,279	1,241
Doctorate	15,901	2,069	10,143	9,890	253	-	32	472	1,706	-	153	39	660	629
Professional/medical	407	240	109	109	-	-	-	23	36	-	-	-	-	-
Master's	13,929	7,288	2,477	1,577	900	-	11	637	2,324	12	416	73	539	150
Bachelor's	16,728	13,735	590	365	226	-	109	221	1,220	-	264	47	80	462
Sociologists / anthropologists	22,993	7,540	10,901	9,757	990	153	378	1,643	814	-	875	207	184	453
Doctorate	10,395	689	8,203	7,737	465	-	15	743	359	-	195	-	169	24
Professional/medical	200	173	12	12	-	-	-	15	-	-	-	-	-	-
Master's	5,328	1,217	2,321	1,654	513	153	352	649	184	-	493	75	15	24
Bachelor's	7,070	5,462	365	353	12	-	11	236	271	-	187	132	-	406
Other social scientists	46,142	13,830	17,141	15,072	1,767	303	2,478	4,582	2,127	24	2,494	2,721	70	474
Doctorate	13,953	1,106	11,295	10,793	502	-	27	344	508	-	277	339	31	27
Professional/medical	992	870	-	-	-	-	-	13	-	-	109	-	-	-
Master's	19,158	4,189	5,348	3,834	1,265	249	1,870	3,332	867	24	1,485	1,601	27	215
Bachelor's	12,039	7,664	499	445	-	54	581	893	752	-	623	781	12	233

NOTE: Detail may not add to total due to rounding.

Source: National Science Foundation.

Table B-11. Number of Employed Scientists and Engineers by Field, Highest Degree, and Primary Work Activity: 1982

Field and Highest Degree	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Reports, stat'l work,& computer appl.	Other	Not reported
		Total	Basic research	Applied research	Development and design	Total	Of research & develop.	Of other than R & D						
Total, all fields	**1,758,844**	**494,790**	**47,614**	**97,261**	**349,918**	**524,017**	**169,798**	**354,220**	**134,463**	**86,383**	**210,067**	**148,840**	**81,469**	**78,792**
Doctorate	260,032	81,214	32,191	33,607	15,417	51,947	28,646	23,300	87,825	8,520	2,932	6,391	14,862	5,821
Professional/medical	9,343	2,302	646	1,007	646	4,041	1,103	2,938	1,764	371	374	362	554	75
Master's	437,237	122,629	7,978	30,479	84,171	144,107	52,844	91,263	34,336	26,658	33,524	39,634	25,368	10,961
Bachelor's	881,477	233,987	6,336	28,956	198,694	299,[illegible]	80,010	219,589	8,922	44,977	139,706	95,811	33,374	25,101
Associate	35,500	15,436	78	894	14,464	5,5[illegible]	1,619	3,943	349	850	8,892	1,974	1,374	1,063
Other	486	186	-	-	186	88	20	68	-	109	34	34	34	-
No degree	134,769	39,036	384	2,318	36,335	18,673	5,556	13,117	1,268	4,899	24,602	4,634	5,903	35,751
Physical scientists	**115,821**	**45,594**	**10,802**	**19,283**	**15,708**	**34,292**	**18,666**	**15,626**	**16,355**	**1,444**	**11,807**	**2,047**	**1,286**	**2,987**
Doctorate	48,573	20,706	7,516	9,115	4,074	12,455	9,432	3,023	12,748	437	666	302	310	950
Professional/medical	161	-	-	-	-	143	-	143	-	-	18	-	-	-
Master's	25,086	10,196	1,738	4,305	4,153	6,908	3,887	3,021	2,516	528	2,966	670	249	1,053
Bachelor's	42,002	14,692	1,548	5,863	7,481	14,786	5,348	9,440	1,091	479	8,156	1,075	727	985
Chemists	**78,029**	**29,001**	**4,662**	**12,694**	**11,645**	**23,896**	**11,851**	**12,044**	**9,863**	**676**	**10,230**	**1,400**	**1,009**	**1,953**
Doctorate	27,770	10,040	2,608	4,928	2,504	8,357	6,255	2,102	7,658	182	482	172	230	650
Professional/medical	118	-	-	-	-	109	-	109	-	-	9	-	-	-
Master's	15,785	6,712	811	3,182	2,719	3,888	1,904	1,983	1,374	235	2,679	448	82	367
Bachelor's	34,356	12,249	1,243	4,584	6,421	11,542	3,692	7,850	832	260	7,061	780	697	936
Physicists / astronomers	**25,802**	**10,355**	**4,716**	**3,441**	**2,198**	**7,431**	**5,272**	**2,158**	**5,680**	**319**	**625**	**359**	**226**	**807**
Doctorate	15,450	7,335	3,882	2,469	1,004	2,837	2,391	446	4,606	209	126	98	58	160
Professional/medical	34	-	-	-	-	34	-	34	-	-	-	-	-	-
Master's	5,795	2,118	799	609	710	1,817	1,480	338	815	76	79	134	167	586
Bachelor's	4,523	882	35	363	484	2,743	1,402	1,341	280	34	419	127	-	58
Other physical scientists	**11,991**	**6,237**	**1,424**	**2,947**	**1,866**	**2,966**	**1,542**	**1,424**	**811**	**448**	**952**	**287**	**51**	**236**
Doctorate	5,353	3,311	1,026	1,718	566	1,261	786	474	484	46	58	33	21	140
Professional/medical	9	-	-	-	-	-	-	-	-	-	9	-	-	-
Master's	3,506	1,366	128	514	724	1,202	502	700	327	217	208	87	-	98
Bachelor's	3,123	1,561	270	715	576	503	254	249	-	185	676	166	30	-
Mathematical scientists	**43,944**	**6,190**	**1,830**	**2,363**	**1,996**	**12,659**	**5,107**	**7,552**	**16,240**	**758**	**1,627**	**5,139**	**384**	**947**
Doctorate	16,531	2,987	1,546	1,086	355	1,485	740	745	10,432	130	-	994	9	494
Professional/medical	93	29	-	12	18	36	36	-	-	18	-	9	-	-
Master's	14,641	1,913	221	875	817	3,784	2,052	1,733	5,160	535	428	2,526	127	169
Bachelor's	12,679	1,260	63	391	806	7,354	2,279	5,075	648	76	1,199	1,610	248	284
Mathematicians	**36,945**	**5,336**	**1,785**	**1,696**	**1,855**	**11,491**	**4,420**	**7,070**	**14,758**	**455**	**1,404**	**2,278**	**384**	**838**
Doctorate	14,085	2,528	1,519	698	310	1,279	570	709	9,539	58	-	205	9	467
Professional/medical	72	18	-	-	18	36	36	-	-	18	-	-	-	-
Master's	11,473	1,635	221	659	754	3,325	1,705	1,620	4,589	321	241	1,130	127	105
Bachelor's	11,315	1,155	45	338	773	6,851	2,109	4,742	630	58	1,163	943	248	266
Statisticians	**7,000**	**854**	**45**	**668**	**141**	**1,168**	**686**	**482**	**1,481**	**303**	**223**	**2,861**	-	**109**
Doctorate	2,446	459	27	386	45	206	170	36	893	71	-	789	-	27
Professional/medical	21	12	-	12	-	-	-	-	-	-	-	9	-	-
Master's	3,169	278	-	216	63	459	347	113	570	214	187	1,396	-	64
Bachelor's	1,364	105	18	54	33	503	170	333	18	18	36	667	-	18
Computer specialists	**168,578**	**30,155**	**857**	**3,060**	**26,238**	**28,453**	**10,585**	**17,868**	**4,546**	**9,775**	**4,313**	**85,942**	**1,977**	**3,417**
Doctorate	7,315	2,191	551	570	1,070	1,297	513	784	1,479	486	80	1,647	70	64
Professional/medical	355	11	-	-	11	235	226	9	-	72	-	36	-	-
Master's	48,277	10,807	237	1,272	9,299	8,318	3,738	4,580	1,665	3,769	1,000	21,000	645	1,073
Bachelor's	112,631	17,146	70	1,219	15,857	18,603	6,108	12,495	1,401	5,447	3,233	63,258	1,262	2,280
Environmental scientists	**42,407**	**17,306**	**3,538**	**9,264**	**4,504**	**11,080**	**4,510**	**6,570**	**2,701**	**3,697**	**3,843**	**2,458**	**370**	**953**
Doctorate	8,516	4,236	2,022	2,074	139	1,659	1,035	624	1,875	426	176	79	-	65
Professional/medical	200	36	18	18	-	145	18	127	-	18	-	-	-	-
Master's	15,276	6,437	661	3,812	1,964	3,822	1,733	2,089	750	1,586	1,376	684	163	457
Bachelor's	18,416	6,596	836	3,359	2,401	5,454	1,724	3,729	76	1,667	2,291	1,694	207	432
Earth scientists	**35,850**	**14,212**	**2,079**	**7,989**	**4,144**	**9,758**	**3,875**	**5,884**	**2,440**	**3,432**	**3,296**	**1,504**	**334**	**825**
Doctorate	6,327	2,622	1,030	1,453	139	1,415	825	590	1,685	408	118	18	-	61
Professional/medical	200	36	18	18	-	145	18	127	-	18	-	-	-	-
Master's	13,090	5,508	377	3,311	1,821	3,218	1,354	1,864	680	1,495	1,202	457	145	385
Bachelor's	16,234	6,045	654	3,207	2,185	4,980	1,677	3,303	76	1,560	1,976	1,029	189	379
Oceanographers	**1,649**	**1,019**	**380**	**441**	**198**	**385**	**215**	**169**	**46**	-	**95**	**65**	-	**40**
Doctorate	467	341	211	131	-	36	36	-	27	-	58	-	-	4
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	720	349	123	208	18	288	179	109	18	-	18	29	-	18
Bachelor's	463	329	47	102	180	61	-	61	-	-	18	36	-	18
Atmospheric scientists	**4,907**	**2,074**	**1,079**	**834**	**161**	**937**	**420**	**516**	**215**	**215**	**453**	**889**	**36**	**88**
Doctorate	1,722	1,272	782	490	-	208	174	34	163	18	-	61	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	1,466	580	162	293	125	316	200	117	52	91	156	199	18	54
Bachelor's	1,720	222	135	50	36	413	47	366	-	107	297	629	18	34

See Footnotes at end of Table

Table B-11. Number of Employed Scientists and Engineers by Field, Highest Degree, and Primary Work Activity: 1982—continued

Field and Highest Degree	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Reports, stat'l work,& computer appl.	Other	Not reported
		Total	Basic research	Applied research	Development and design	Total	Of research & develop.	Of other than R & D						
Engineers	**1,051,872**	**331,776**	**4,683**	**34,333**	**292,760**	**332,074**	**107,257**	**224,817**	**20,209**	**56,154**	**169,864**	**40,508**	**36,070**	**61,217**
Doctorate	45,530	15,470	1,282	6,454	7,734	14,862	9,386	5,276	9,615	2,667	918	819	419	938
Professional/medical	2,616	925	-	306	619	931	344	587	109	154	226	151	86	34
Master's	230,827	76,600	1,086	11,031	64,482	89,687	34,519	56,188	5,584	13,120	23,154	9,124	4,597	5,961
Bachelor's	601,144	184,119	1,861	13,330	168,927	202,471	56,813	146,859	3,283	34,336	112,036	23,771	23,657	17,470
Associate	36,500	15,436	78	894	14,464	5,582	1,019	3,943	349	650	8,892	1,974	1,374	1,063
Other	486	188	-	-	188	88	20	68	-	109	34	34	34	-
No degree	134,769	39,038	384	2,318	36,335	18,673	5,556	13,117	1,269	4,899	24,602	4,634	5,903	35,751
Aeronautical / Astronautical	**45,987**	**20,250**	**382**	**3,637**	**16,251**	**14,966**	**9,513**	**5,442**	**626**	**606**	**4,189**	**2,563**	**391**	**2,425**
Doctorate	2,812	1,203	66	657	478	1,008	865	143	379	-	66	46	-	109
Professional/medical	320	143	-	101	42	68	68	-	-	-	-	109	-	-
Master's	13,302	5,870	95	1,589	4,186	5,098	3,211	1,886	143	337	762	681	136	273
Bachelor's	22,030	9,960	196	1,145	8,616	7,295	4,336	2,960	104	203	2,436	1,275	188	568
Associate	1,354	775	-	34	741	178	114	62	-	-	293	110	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	6,169	2,299	-	111	2,186	1,310	919	391	-	66	630	336	66	1,476
Chemical	**61,277**	**21,764**	**159**	**2,732**	**18,864**	**22,388**	**7,367**	**14,910**	**872**	**1,457**	**9,399**	**1,884**	**982**	**2,580**
Doctorate	6,258	2,427	107	913	1,408	2,370	1,229	1,141	682	231	195	127	12	204
Professional/medical	120	44	-	44	-	34	-	34	-	-	34	8	-	-
Master's	14,877	5,057	-	549	4,508	6,717	2,606	4,111	152	440	1,359	471	292	390
Bachelor's	37,290	13,256	52	1,159	12,045	12,890	3,387	9,503	129	752	7,540	1,278	678	787
Associate	381	170	-	-	170	34	34	-	-	34	144	-	-	-
Other	34	34	-	-	34	-	-	-	-	-	-	-	-	-
No degree	2,316	787	-	88	699	223	102	122	-	-	128	-	-	1,199
Civil	**145,955**	**25,129**	**265**	**2,094**	**22,769**	**52,154**	**6,319**	**45,839**	**2,353**	**22,189**	**27,857**	**5,629**	**1,960**	**8,703**
Doctorate	4,427	700	10	363	326	1,499	750	749	1,267	640	168	95	18	30
Professional/medical	274	52	-	-	52	136	34	102	-	34	18	34	-	-
Master's	31,038	5,863	213	948	4,703	11,682	1,519	10,163	791	6,426	3,995	871	339	1,068
Bachelor's	91,982	15,422	42	662	14,718	35,304	3,394	31,910	240	13,353	19,000	3,816	1,480	3,377
Associate	3,464	926	-	-	926	736	104	632	52	170	1,014	256	-	310
Other	278	68	-	-	68	34	-	34	-	109	34	34	-	-
No degree	14,465	2,097	-	102	1,995	2,764	514	2,250	3	1,439	3,628	523	112	3,919
Electrical / Electronic	**245,781**	**100,718**	**1,680**	**9,741**	**89,296**	**73,061**	**35,530**	**37,521**	**4,678**	**8,246**	**33,994**	**7,093**	**3,620**	**13,769**
Doctorate	9,767	4,008	472	1,365	2,171	3,430	2,595	836	1,877	169	54	54	34	141
Professional/medical	674	296	-	109	187	250	20	229	-	52	76	-	-	-
Master's	57,551	25,834	348	3,238	22,248	21,005	12,525	8,480	1,073	2,118	3,433	2,249	449	1,390
Bachelor's	139,606	55,490	788	3,928	50,774	43,910	18,492	25,418	1,122	4,665	23,841	4,058	2,707	3,812
Associate	9,981	5,031	10	402	4,619	1,490	524	967	153	407	2,051	401	160	278
Other	98	66	-	-	66	-	-	-	-	-	-	-	-	-
No degree	28,135	9,991	62	699	9,229	2,965	1,374	1,591	453	834	4,538	931	274	8,148
Industrial	**67,937**	**12,798**	**34**	**458**	**12,302**	**24,410**	**3,335**	**21,075**	**1,425**	**2,248**	**17,005**	**4,648**	**1,721**	**3,684**
Doctorate	1,218	135	-	58	76	195	44	151	843	34	-	-	-	12
Professional/medical	86	34	-	-	34	52	-	52	-	-	-	-	-	-
Master's	12,205	1,583	-	52	1,531	5,230	799	4,430	269	872	2,820	775	502	154
Bachelor's	40,832	7,266	34	222	7,010	16,385	2,109	14,276	232	1,177	10,441	2,860	1,112	1,159
Associate	2,420	815	-	42	772	569	102	467	68	-	616	250	-	102
Other	8	8	-	-	8	-	-	-	-	-	-	-	-	-
No degree	11,367	2,956	-	84	2,870	1,960	281	1,686	13	165	3,127	763	106	2,258
Materials	**22,895**	**7,831**	**420**	**2,162**	**5,249**	**7,791**	**3,727**	**4,064**	**633**	**963**	**4,168**	**274**	**342**	**893**
Doctorate	3,312	1,327	353	425	549	1,197	878	319	599	36	101	-	-	52
Professional/medical	177	143	-	-	143	34	-	34	-	-	-	-	-	-
Master's	5,806	2,007	-	570	1,437	2,591	1,343	1,248	34	269	455	70	52	110
Bachelor's	11,547	3,435	66	948	2,421	3,834	1,439	2,395	-	569	2,946	205	290	269
Associate	420	198	-	52	146	-	-	-	-	-	222	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	1,823	723	-	170	553	136	68	68	-	58	444	-	-	462
Mechanical	**206,943**	**83,225**	**686**	**5,412**	**77,128**	**68,036**	**21,504**	**46,531**	**4,669**	**7,298**	**27,248**	**3,487**	**2,835**	**10,178**
Doctorate	6,341	2,080	122	1,115	844	1,783	1,050	733	1,728	265	78	143	80	184
Professional/medical	339	89	-	-	89	114	12	102	-	34	68	-	-	34
Master's	43,551	16,064	52	1,891	14,120	18,007	5,665	12,342	2,035	1,624	3,879	745	362	834
Bachelor's	127,192	50,157	342	2,002	47,813	44,309	13,307	31,002	654	4,479	19,737	2,340	2,177	3,339
Associate	6,447	4,321	-	102	4,220	798	256	542	8	68	840	78	82	271
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	23,073	10,513	170	302	10,042	3,024	1,214	1,810	244	798	2,646	181	154	5,515
Mining	**7,334**	**1,435**	**46**	**356**	**1,033**	**2,253**	**530**	**1,723**	**260**	**744**	**1,766**	**641**	**60**	**174**
Doctorate	419	79	-	60	18	70	52	18	252	-	-	18	-	-
Professional/medical	18	18	-	18	-	-	-	-	-	-	-	-	-	-
Master's	751	192	-	88	104	287	68	219	-	116	70	68	-	18
Bachelor's	5,630	974	46	155	773	1,776	392	1,384	8	560	1,592	555	60	104
Associate	71	-	-	-	-	-	-	-	-	-	71	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	446	172	-	34	138	120	18	102	-	68	34	-	-	52
Nuclear	**9,657**	**2,677**	**78**	**535**	**2,064**	**3,587**	**1,352**	**2,235**	**151**	**513**	**1,513**	**379**	**218**	**620**
Doctorate	838	368	-	128	240	257	257	-	-	52	-	34	109	18
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	3,612	1,117	34	295	789	1,553	584	969	109	230	482	122	-	-
Bachelor's	4,220	1,072	44	112	915	1,642	497	1,144	42	231	901	189	109	34
Associate	146	34	-	-	34	34	34	-	-	-	78	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	841	86	-	-	86	102	-	102	-	-	52	34	-	568
Petroleum	**14,165**	**2,449**	**118**	**543**	**1,787**	**4,395**	**769**	**3,626**	**122**	**1,242**	**3,403**	**511**	**476**	**1,565**
Doctorate	672	178	58	86	34	201	201	-	80	179	34	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	2,024	396	-	122	275	979	143	836	-	68	433	62	68	18
Bachelor's	9,652	1,429	60	302	1,067	3,171	425	2,746	42	995	2,631	449	342	593
Associate	102	68	-	-	68	-	-	-	-	-	34	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	1,715	378	-	34	344	44	-	44	-	-	271	-	66	954

See Footnotes at end of Table

Table B-11. **Number of Employed Scientists and Engineers by Field, Highest Degree, and Primary Work Activity: 1982**—continued

Field and Highest Degree	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Reports, stat'l work, & computer appl.	Other	Not reported
		Total	Basic research	Applied research	Development and design	Total	Of research & develop.	Of other than R & D						
Other	222,930	53,511	845	4,660	48,006	59,175	17,322	41,852	4,319	13,699	39,323	12,798	23,459	16,646
Doctorate	9,465	2,965	92	1,283	1,590	2,651	1,465	1,186	1,899	1,072	220	303	167	188
Professional/medical	609	106	-	34	72	244	211	34	109	34	30	-	86	-
Master's	46,310	12,617	346	1,690	10,581	16,539	6,075	10,464	979	3,590	5,467	3,007	2,395	1,706
Bachelor's	111,354	25,657	186	2,677	22,794	31,957	8,035	23,921	709	7,352	20,973	6,746	14,513	3,448
Associate	10,716	3,099	68	262	2,769	1,725	452	1,273	68	172	3,529	879	1,142	102
Other	98	10	-	-	10	54	20	34	-	-	-	-	34	-
No degree	44,380	9,057	152	715	8,190	6,005	1,065	4,940	555	1,471	9,104	1,864	5,122	11,202
Life scientists	137,483	42,501	19,660	17,730	5,111	43,899	12,203	31,696	24,122	3,972	11,200	3,282	5,577	2,928
Doctorate	51,025	23,143	14,529	7,652	962	7,917	3,825	4,093	16,261	793	652	641	842	776
Professional/medical	4,757	1,272	616	656	-	1,514	444	1,070	1,419	-	21	21	466	41
Master's	32,336	10,153	2,846	5,541	1,766	10,381	3,143	7,238	5,162	1,146	2,034	1,265	1,334	862
Bachelor's	49,365	7,933	1,688	3,881	2,364	24,087	4,791	19,296	1,281	2,033	8,492	1,355	2,935	1,249
Biologists	85,306	23,993	11,404	9,643	2,946	28,667	7,488	21,179	16,182	3,171	6,530	2,593	2,342	1,829
Doctorate	30,238	11,416	7,765	3,262	389	5,110	2,227	2,883	11,491	517	304	422	353	626
Professional/medical	559	150	119	31	-	335	109	226	64	-	-	-	10	-
Master's	21,153	6,322	2,033	3,502	787	6,436	1,792	4,643	4,017	980	1,228	1,050	474	646
Bachelor's	33,356	6,105	1,488	2,847	1,770	16,787	3,360	13,427	610	1,674	4,998	1,121	1,505	557
Biochemists	9,626	5,877	4,501	1,090	286	1,517	870	647	1,453	10	301	40	357	61
Doctorate	7,485	4,987	4,120	695	172	824	485	339	1,426	-	68	40	99	40
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	1,561	781	381	287	114	440	336	105	10	10	138	-	150	21
Bachelor's	581	109	-	109	-	252	49	203	17	-	94	-	109	-
Agricultural scientists	27,836	7,342	863	5,115	1,364	10,316	2,585	7,731	2,741	689	4,001	525	1,392	830
Doctorate	7,497	3,763	587	2,826	351	1,353	748	604	1,757	183	239	119	21	61
Professional/medical	109	109	-	109	-	-	-	-	-	-	-	-	-	-
Master's	6,931	2,214	215	1,471	527	2,667	726	1,941	643	147	499	215	352	195
Bachelor's	13,300	1,256	61	709	486	6,297	1,111	5,186	341	359	3,263	191	1,019	574
Medical scientists	14,715	5,288	2,890	1,882	516	3,398	1,260	2,139	3,745	102	368	124	1,479	209
Doctorate	5,805	2,976	2,056	869	51	631	365	266	1,587	93	40	60	369	49
Professional/medical	4,089	1,013	497	516	-	1,179	336	844	1,354	-	21	21	458	41
Master's	2,692	836	217	281	337	838	289	549	491	10	169	-	348	-
Bachelor's	2,128	463	119	216	128	750	270	480	313	-	138	42	303	119
Psychologists	84,140	6,725	2,557	2,910	1,257	17,919	3,576	14,343	19,197	4,555	2,778	1,212	28,987	2,767
Doctorate	42,294	4,376	2,150	1,807	419	5,890	1,627	4,263	13,977	2,838	319	345	13,035	1,514
Professional/medical	64	-	-	-	-	-	-	-	64	-	-	-	-	-
Master's	32,379	2,113	398	999	716	6,971	1,172	5,799	4,647	1,590	1,328	569	14,257	904
Bachelor's	9,404	236	9	104	122	5,058	777	4,281	510	128	1,131	298	1,694	349
Social scientists	116,100	14,548	3,677	8,518	2,354	43,641	7,895	35,747	31,095	3,028	4,634	8,753	6,834	3,566
Doctorate	40,249	8,106	2,594	4,849	663	6,582	2,089	4,493	21,438	723	120	2,063	198	1,021
Professional/medical	1,599	27	12	15	-	1,037	35	1,003	173	109	109	145	-	-
Master's	38,415	4,410	790	2,645	975	14,237	2,601	11,636	8,852	1,385	1,238	3,795	3,985	502
Bachelor's	35,837	2,006	281	1,009	716	21,784	3,170	18,614	632	811	3,168	2,750	2,642	2,043
Economists	46,965	6,581	1,246	4,490	844	17,119	2,928	14,191	10,447	1,844	1,976	5,596	1,696	1,707
Doctorate	15,901	3,644	836	2,592	216	2,163	653	1,510	7,859	479	102	1,054	24	578
Professional/medical	407	-	-	-	-	154	35	119	109	109	-	36	-	-
Master's	13,929	2,096	252	1,507	336	5,168	1,350	3,817	2,088	678	315	2,637	824	124
Bachelor's	16,728	841	158	391	292	9,635	891	8,744	390	579	1,559	1,870	847	1,006
Sociologists / anthropologists	22,993	3,863	1,597	2,018	249	7,979	1,798	6,181	7,776	329	946	1,062	467	573
Doctorate	10,395	2,601	1,152	1,285	165	1,206	630	576	5,892	63	-	455	-	178
Professional/medical	200	27	12	15	-	-	-	-	64	-	109	-	-	-
Master's	5,328	808	311	424	73	1,743	269	1,474	1,770	227	83	384	200	115
Bachelor's	7,070	427	123	293	11	5,030	898	4,132	51	39	754	222	267	280
Other social scientists	46,142	4,105	833	2,010	1,262	18,543	3,168	15,375	12,873	855	1,713	2,095	4,672	1,286
Doctorate	13,953	1,861	606	972	283	3,213	805	2,408	7,686	181	18	554	173	265
Professional/medical	992	-	-	-	-	883	-	883	-	-	-	109	-	-
Master's	19,153	1,506	226	714	566	7,327	982	6,345	4,994	480	841	774	2,972	264
Bachelor's	12,039	738	-	325	413	7,120	1,381	5,739	191	193	854	658	1,528	757

NOTE: Detail may not add to total due to rounding.

Source: National Science Foundation.

Table B-12. Number of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Type of Employer: 1982

Field and Area of Critical National Interest	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Total, all fields	**1,759,344**	**1,226,007**	**224,382**	**185,390**	**24,44[illegible]**	14,517	**22,506**	**36,654**	**132,583**	**3,070**	**50,364**	**31,564**	7,444	**46,790**
Energy and fuel	267,290	236,212	6,986	6,583	305	78	258	4,103	12,523	10	2,785	2,103	1,360	960
Health	109,773	47,696	21,665	20,658	71	935	18,267	7,300	7,233	515	3,570	2,516	419	584
Environment	101,882	56,215	5,750	5,710	40	-	75	2,354	19,823	254	12,012	5,104	383	852
Teaching	133,836	8,591	122,796	103,330	18,364	1,092	334	570	424	18	301	183	145	477
Education,non-teach	38,628	4,889	29,049	15,193	3,272	10,584	179	2,186	484	-	930	542	205	184
National defense	228,506	186,241	3,123	3,105	18	-	18	6,142	49,978	1,666	696	170	896	585
Crime prevention	8,186	2,974	714	714	-	-	14	370	749	-	2,241	1,079	-	46
Food	50,781	37,122	6,716	6,342	140	234	-	693	4,337	26	1,073	309	336	164
Other mineral resources	17,727	14,130	694	694	-	-	-	143	1,784	-	780	135	34	29
Community development	42,331	22,217	2,118	1,903	156	60	726	2,888	1,454	-	4,247	7,917	211	553
Housing	33,014	28,871	924	854	27	44	34	104	1,085	-	574	1,155	131	136
Does not apply	628,815	537,006	17,160	15,479	735	946	1,596	9,293	29,593	466	19,847	8,774	3,052	2,026
Not reported	98,561	43,849	6,688	4,825	1,319	544	1,006	508	3,127	112	1,299	1,517	261	40,195
Physical scientists	**115,821**	**69,336**	**26,783**	**24,202**	**2,541**	**40**	**659**	**3,742**	**10,753**	**27**	**1,802**	**1,017**	**237**	**1,466**
Energy and fuel	14,895	10,600	1,952	1,952	-	-	-	780	1,421	-	-	17	68	58
Health	10,423	6,620	1,072	1,072	-	-	650	485	1,151	-	143	186	-	115
Environment	10,137	5,914	526	526	-	-	9	584	1,630	-	943	530	-	-
Teaching	18,017	175	17,550	15,374	2,136	40	-	167	-	-	-	-	-	126
Education,non-teach	1,792	273	1,484	1,207	277	-	-	-	17	-	18	-	-	-
National defense	12,097	6,406	902	902	-	-	-	910	3,775	27	-	-	75	-
Crime prevention	442	12	-	-	-	-	-	-	145	-	145	141	-	-
Food	4,329	3,632	33	33	-	-	-	-	455	-	209	-	-	-
Other mineral resources	1,837	1,513	20	20	-	-	-	-	277	-	18	9	-	-
Community development	392	380	-	-	-	-	-	-	-	-	12	-	-	-
Housing	611	611	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	36,603	30,869	2,687	2,616	70	-	-	816	1,747	-	314	77	94	-
Not reported	4,245	2,328	557	499	58	-	-	-	135	-	-	58	-	1,167
Chemists	**78,026**	**53,541**	**14,662**	**12,819**	**1,821**	**22**	**533**	**1,306**	**4,726**	**27**	**1,356**	**950**	**84**	**843**
Energy and fuel	9,032	7,287	760	760	-	-	-	387	573	-	-	17	9	-
Health	9,079	6,074	854	854	-	-	533	152	1,050	-	124	177	-	115
Environment	7,431	5,006	319	319	-	-	-	365	641	-	580	520	-	-
Teaching	10,409	141	10,142	8,597	1,524	22	-	-	-	-	-	-	-	126
Education,non-teach	1,158	203	955	787	168	-	-	-	-	-	-	-	-	-
National defense	4,265	2,796	53	53	-	-	-	116	1,218	27	-	-	75	-
Crime prevention	356	-	-	-	-	-	-	-	145	-	118	93	-	-
Food	4,057	3,380	33	33	-	-	-	-	455	-	209	-	-	-
Other mineral resources	1,406	1,307	-	-	-	-	-	-	92	-	-	9	-	-
Community development	250	239	-	-	-	-	-	-	-	-	12	-	-	-
Housing	393	393	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	27,019	24,691	1,166	1,096	70	-	-	266	485	-	314	77	-	-
Not reported	3,150	2,043	379	321	58	-	-	-	68	-	-	58	-	603
Physicists / astronomers	**25,802**	**9,806**	**10,248**	**9,617**	**612**	**18**	**126**	**1,574**	**3,385**	-	**66**	**10**	**36**	**546**
Energy and fuel	3,389	1,899	781	781	-	-	-	116	534	-	-	-	-	58
Health	766	222	143	143	-	-	117	192	83	-	10	-	-	-
Environment	510	186	-	-	-	-	9	160	86	-	56	10	-	-
Teaching	6,823	-	6,765	6,135	612	18	-	58	-	-	-	-	-	-
Education,non-teach	330	36	294	294	-	-	-	-	-	-	-	-	-	-
National defense	5,587	2,499	730	730	-	-	-	518	1,839	-	-	-	-	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	34	34	-	-	-	-	-	-	-	-	-	-	-	-
Other mineral resources	68	68	-	-	-	-	-	-	-	-	-	-	-	-
Community development	133	133	-	-	-	-	-	-	-	-	-	-	-	-
Housing	109	109	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	7,149	4,372	1,366	1,366	-	-	-	530	843	-	-	-	36	-
Not reported	904	249	167	167	-	-	-	-	-	-	-	-	-	487
Other physical scientists	**11,891**	**5,986**	**1,874**	**1,765**	**109**	-	-	**862**	**2,642**	-	**377**	**57**	**117**	**77**
Energy and fuel	2,475	1,414	411	411	-	-	-	277	315	-	-	-	58	-
Health	578	324	75	75	-	-	-	141	19	-	10	9	-	-
Environment	2,196	722	207	207	-	-	-	58	904	-	305	-	-	-
Teaching	785	34	642	642	-	-	-	109	-	-	-	-	-	-
Education,non-teach	304	34	235	127	109	-	-	-	17	-	18	-	-	-
National defense	2,225	1,113	119	119	-	-	-	276	717	-	-	-	-	-
Crime prevention	86	12	-	-	-	-	-	-	-	-	27	48	-	-
Food	236	236	-	-	-	-	-	-	-	-	-	-	-	-
Other mineral resources	362	136	20	20	-	-	-	-	185	-	18	-	-	-
Community development	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Housing	109	109	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	2,435	1,806	153	153	-	-	-	-	418	-	-	-	58	-
Not reported	191	36	11	11	-	-	-	-	68	-	-	-	-	77
Mathematical scientists	**43,944**	**17,400**	**20,091**	**16,636**	**3,355**	**101**	**202**	**699**	**4,086**	**27**	**491**	**155**	**99**	**686**
Energy and fuel	1,873	1,510	196	196	-	-	-	18	112	-	-	18	18	-
Health	2,886	1,262	565	565	-	-	202	226	457	18	93	52	12	-
Environment	520	328	36	36	-	-	-	-	85	-	54	-	-	18
Teaching	17,431	127	17,108	14,098	2,974	36	-	-	161	-	-	-	-	18
Education,non-teach	1,264	34	1,159	840	254	65	-	54	18	-	-	-	-	-
National defense	5,752	3,442	144	144	-	-	-	271	1,706	9	-	-	18	99
Crime prevention	19	-	-	-	-	-	-	-	-	-	9	9	-	-
Food	820	449	154	46	109	-	-	-	216	-	-	-	-	-
Other mineral resources	127	127	-	-	-	-	-	-	-	-	-	-	-	-
Community development	532	367	18	18	-	-	-	15	36	-	86	10	-	-
Housing	240	240	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	11,380	9,324	427	409	18	-	-	95	1,184	-	214	65	41	29
Not reported	1,102	190	286	286	-	-	-	20	39	-	36	-	10	522

See Footnotes at end of Table

Table B-12. Number of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Type of Employer: 1982—continued

Field and Area of Critical National Interest	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Mathematicians	36,946	14,910	17,740	14,323	3,337	80	117	506	2,814	-	91	92	44	629
Energy and fuel	1,484	1,220	178	178	-	-	-	-	67	-	-	-	18	-
Health	1,297	820	127	127	-	-	117	136	56	-	-	34	-	-
Environment	320	271	-	-	-	-	-	-	32	-	-	-	-	18
Teaching	15,962	127	15,636	12,638	2,974	24	-	-	181	-	-	-	-	18
Education, non-teach	1,012	34	959	666	236	56	-	18	-	-	-	-	-	-
National defense	5,453	3,290	127	127	-	-	-	271	1,648	-	-	-	18	96
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	659	415	100	-	100	-	-	-	144	-	-	-	-	-
Other mineral resources	109	109	-	-	-	-	-	-	-	-	-	-	-	-
Community development	422	350	18	18	-	-	-	15	-	-	30	10	-	-
Housing	240	240	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	9,042	7,889	318	300	18	-	-	47	659	-	61	48	8	12
Not reported	936	138	288	288	-	-	-	20	28	-	-	-	-	482
Statisticians	7,000	2,480	2,351	2,312	18	21	85	190	1,281	27	400	63	55	57
Energy and fuel	380	280	18	18	-	-	-	18	45	-	-	18	-	-
Health	1,586	435	436	436	-	-	85	89	401	18	93	18	12	-
Environment	200	57	36	36	-	-	-	-	53	-	54	-	-	-
Teaching	1,469	-	1,469	1,457	-	12	-	-	-	-	-	-	-	-
Education, non-teach	253	-	199	172	18	9	-	36	18	-	-	-	-	-
National defense	299	152	18	18	-	-	-	-	120	9	-	-	-	-
Crime prevention	19	-	-	-	-	-	-	-	-	-	9	9	-	-
Food	152	35	46	46	-	-	-	-	71	-	-	-	-	-
Other mineral resources	18	18	-	-	-	-	-	-	-	-	-	-	-	-
Community development	110	18	-	-	-	-	-	-	36	-	57	-	-	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	2,337	1,435	109	109	-	-	-	48	525	-	152	18	33	18
Not reported	166	52	18	18	-	-	-	-	12	-	36	-	10	39
Computer specialists	168,578	133,047	9,560	7,054	1,770	736	1,969	3,158	11,653	283	4,147	2,059	615	2,089
Energy and fuel	9,764	8,740	30	30	-	-	-	108	636	-	97	117	-	36
Health	6,616	3,454	267	267	-	-	1,585	399	744	-	148	20	-	-
Environment	1,605	925	-	-	-	-	-	36	479	9	76	70	-	10
Teaching	6,146	2,089	3,987	2,816	1,151	20	-	-	-	-	36	-	-	36
Education, non-teach	4,782	1,513	2,659	1,535	454	670	-	180	72	-	286	72	-	-
National defense	17,809	12,313	40	40	-	-	-	455	4,547	145	72	-	129	109
Crime prevention	1,912	843	-	-	-	-	-	-	173	-	706	189	-	-
Food	2,168	1,936	18	18	-	-	-	-	213	-	-	-	-	-
Other mineral resources	654	417	109	109	-	-	-	-	126	-	-	-	-	-
Community development	3,260	1,933	387	351	-	36	-	173	90	-	312	366	-	-
Housing	564	553	-	-	-	-	-	-	11	-	-	-	-	-
Does not apply	108,492	95,631	1,987	1,832	145	10	276	1,807	4,205	129	2,394	1,155	487	422
Not reported	4,803	2,700	76	56	20	-	109	-	355	-	18	70	-	1,476
Environmental scientists	42,467	26,442	5,328	4,713	615	-	-	376	7,339	152	1,962	181	108	519
Energy and fuel	22,056	19,645	522	522	-	-	-	58	1,258	-	392	18	54	109
Health	83	18	11	11	-	-	-	-	18	-	36	-	-	-
Environment	6,104	1,327	1,166	1,147	18	-	-	242	2,295	115	796	105	-	58
Teaching	2,927	47	2,753	2,156	597	-	-	-	109	18	-	-	-	-
Education, non-teach	179	69	81	81	-	-	-	18	11	-	-	-	-	-
National defense	1,567	274	11	11	-	-	-	21	1,246	-	-	-	36	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	477	312	18	18	-	-	-	-	128	18	-	-	-	-
Other mineral resources	3,606	2,130	166	166	-	-	-	-	733	-	506	40	-	29
Community development	303	182	18	18	-	-	-	-	33	-	52	18	-	-
Housing	286	286	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	3,535	1,640	406	406	-	-	-	18	1,316	-	136	-	18	-
Not reported	1,263	512	177	177	-	-	-	18	193	-	40	-	-	323
Earth scientists	35,850	24,861	3,937	3,349	588	-	-	121	4,451	-	1,853	111	73	442
Energy and fuel	21,784	19,442	501	501	-	-	-	47	1,221	-	392	18	54	109
Health	73	18	-	-	-	-	-	-	18	-	36	-	-	-
Environment	2,842	743	355	337	18	-	-	17	987	-	705	35	-	-
Teaching	2,626	47	2,472	1,902	570	-	-	-	109	-	-	-	-	-
Education, non-teach	121	11	81	81	-	-	-	18	11	-	-	-	-	-
National defense	690	57	11	11	-	-	-	21	601	-	-	-	-	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	277	185	-	-	-	-	-	-	92	-	-	-	-	-
Other mineral resources	3,606	2,130	166	166	-	-	-	-	733	-	506	40	-	29
Community development	255	164	-	-	-	-	-	-	21	-	52	18	-	-
Housing	286	286	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	2,187	1,319	211	211	-	-	-	-	520	-	119	-	18	-
Not reported	1,102	460	141	141	-	-	-	18	139	-	40	-	-	305
Oceanographers	1,649	353	526	517	9	-	-	46	671	36	-	-	-	18
Energy and fuel	79	61	18	18	-	-	-	-	-	-	-	-	-	-
Health	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environment	752	135	354	354	-	-	-	45	200	18	-	-	-	-
Teaching	27	-	27	18	9	-	-	-	-	-	-	-	-	-
Education, non-teach	-	-	-	-	-	-	-	-	-	-	-	-	-	-
National defense	569	147	-	-	-	-	-	-	423	-	-	-	-	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	36	-	18	18	-	-	-	-	-	18	-	-	-	-
Other mineral resources	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Community development	18	-	18	18	-	-	-	-	-	-	-	-	-	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	95	11	54	54	-	-	-	-	30	-	-	-	-	-
Not reported	73	-	36	36	-	-	-	-	18	-	-	-	-	18

See Footnotes at end of Table

Table B-12. Number of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Type of Employer: 1982—continued

Field and Area of Critical National Interest	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Atmospheric scientists	4,907	1,228	865	847	18	-	-	209	2,218	115	109	70	36	58
Energy and fuel	193	143	3	3	-	-	-	11	36	-	-	-	-	-
Health	11	-	11	11	-	-	-	-	-	-	-	-	-	-
Environment	2,510	449	457	457	-	-	-	180	1,107	97	91	70	-	58
Teaching	272	-	254	236	18	-	-	-	-	18	-	-	-	-
Education, non-teach	58	58	-	-	-	-	-	-	-	-	-	-	-	-
National defense	328	70	-	-	-	-	-	-	222	-	-	-	36	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	163	127	-	-	-	-	-	-	36	-	-	-	-	-
Other mineral resources	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Community development	30	18	-	-	-	-	-	-	12	-	-	-	-	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	1,254	311	141	141	-	-	-	18	766	-	18	-	-	-
Not reported	88	52	-	-	-	-	-	-	36	-	-	-	-	-
Engineers	1,050,872	843,962	32,148	27,406	4,070	672	2,055	12,286	70,769	1,910	25,892	21,024	4,036	36,829
Energy and fuel	207,983	188,001	3,544	3,270	196	78	214	3,003	7,742	10	1,824	1,792	1,119	744
Health	21,358	15,839	918	884	-	34	1,310	312	1,368	203	695	535	[illegible]	76
Environment	54,857	39,415	652	652	-	-	44	304	5,255	120	4,600	3,612	307	366
Teaching	20,700	4,513	15,899	12,736	3,127	34	-	87	78	-	-	10	-	143
Education, non-teach	5,441	1,751	3,027	2,656	109	262	10	143	172	-	304	34	-	-
National defense	186,453	140,578	1,601	1,583	18	-	18	4,213	37,140	1,213	515	170	626	377
Crime prevention	1,930	1,560	-	-	-	-	-	34	68	-	68	[illegible]	-	34
Food	16,936	15,620	439	439	-	-	-	109	530	-	71	[illegible]	84	34
Other mineral resources	10,419	9,121	362	362	-	-	-	143	431	-	242	86	34	-
Community development	27,633	16,490	338	294	34	10	34	247	810	-	2,775	6,540	196	214
Housing	28,349	25,284	253	182	27	44	34	104	857	-	421	1,155	106	136
Does not apply	394,073	350,956	3,224	2,863	213	148	357	3,289	14,521	262	13,294	5,673	1,364	1,132
Not reported	74,727	34,842	1,891	1,482	346	62	34	239	1,796	102	985	1,139	146	33,551
Aeronautical / Astronautical	46,007	34,919	1,706	1,672	34	-	-	569	7,152	34	34	211	102	1,281
Energy and fuel	2,214	1,648	153	153	-	-	-	18	395	-	-	-	-	-
Health	44	10	34	34	-	-	-	-	-	-	-	-	-	-
Environment	258	102	-	-	-	-	-	-	122	34	-	-	-	-
Teaching	806	34	772	772	-	-	-	-	-	-	-	-	-	-
Education, non-teach	286	177	109	109	-	-	-	-	-	-	-	-	-	-
National defense	26,659	22,254	153	153	-	-	-	337	3,778	-	-	34	68	34
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	136	136	-	-	-	-	-	-	-	-	-	-	-	-
Other mineral resources	127	127	-	-	-	-	-	-	-	-	-	-	-	-
Community development	120	52	-	-	-	-	-	-	-	-	34	-	34	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	12,639	9,334	342	342	-	-	-	180	2,573	-	-	177	-	34
Not reported	2,719	1,046	143	109	34	-	-	34	283	-	-	-	-	1,213
Chemical	61,277	54,946	1,905	1,671	234	-	-	906	1,466	52	295	195	86	1,430
Energy and fuel	20,410	18,899	399	399	-	-	-	592	275	-	42	-	52	151
Health	2,182	2,006	-	-	-	-	-	-	34	34	-	109	-	-
Environment	6,254	5,778	-	-	-	-	-	60	220	-	110	52	-	34
Teaching	1,069	77	992	775	218	-	-	-	-	-	-	-	-	-
Education, non-teach	109	-	109	109	-	-	-	-	-	-	-	-	-	-
National defense	2,837	1,826	-	-	-	-	-	68	783	18	109	-	-	34
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	2,616	2,331	176	176	-	-	-	109	-	-	-	-	-	-
Other mineral resources	1,349	1,247	-	-	-	-	-	-	68	-	34	-	-	-
Community development	143	143	-	-	-	-	-	-	-	-	-	-	-	-
Housing	240	222	-	-	-	-	-	-	18	-	-	-	-	-
Does not apply	20,942	20,679	85	85	-	-	-	76	34	-	-	34	34	-
Not reported	3,126	1,737	144	127	17	-	-	-	34	-	-	-	-	1,211
Civil	145,956	88,456	3,792	3,397	265	129	102	841	13,268	353	17,763	13,501	768	5,112
Energy and fuel	21,866	16,853	18	18	-	-	-	272	1,556	-	576	324	86	180
Health	2,245	1,433	-	-	-	-	34	-	120	34	226	364	34	-
Environment	13,943	8,214	146	146	-	-	-	-	2,026	34	1,612	1,706	195	8
Teaching	2,481	298	2,064	1,835	229	-	-	-	-	-	-	10	-	109
Education, non-teach	1,121	171	731	612	-	119	-	-	34	-	185	-	-	-
National defense	5,650	2,400	-	-	-	-	-	42	2,900	34	256	-	18	-
Crime prevention	86	86	-	-	-	-	-	-	-	-	-	-	-	-
Food	964	647	-	-	-	-	-	-	182	-	34	68	-	34
Other mineral resources	1,815	1,463	-	-	-	-	-	-	164	-	102	52	34	-
Community development	16,596	7,686	109	109	-	-	-	34	608	-	2,411	5,842	94	12
Housing	15,953	14,007	81	52	18	10	-	52	531	-	403	794	18	68
Does not apply	52,581	31,323	292	274	18	-	68	407	4,785	218	11,281	3,918	255	34
Not reported	10,655	3,875	352	352	-	-	-	34	362	[illegible]	678	620	34	4,667
Electrical / Electronic	246,781	200,358	7,511	6,492	975	44	273	4,018	20,988	523	1,000	1,821	814	8,493
Energy and fuel	39,411	35,150	414	380	34	-	-	461	1,933	-	392	805	203	52
Health	3,682	2,866	365	365	-	-	195	34	144	34	10	-	-	34
Environment	2,906	2,202	102	102	-	-	-	-	391	-	28	148	34	-
Teaching	4,821	1,333	3,329	2,492	837	-	-	47	78	-	-	-	-	34
Education, non-teach	1,672	677	837	837	-	-	10	-	138	-	10	-	-	-
National defense	67,052	49,223	781	763	18	-	-	2,002	14,136	489	-	68	245	129
Crime prevention	882	780	-	-	-	-	-	-	68	-	34	-	-	-
Food	1,922	1,922	-	-	-	-	-	-	-	-	-	-	-	-
Other mineral resources	684	607	43	43	-	-	-	-	-	-	-	34	-	-
Community development	3,155	2,837	44	10	34	-	-	34	9	-	52	144	-	34
Housing	2,790	2,528	34	34	-	-	-	18	122	-	-	-	54	34
Does not apply	99,362	92,101	972	919	18	34	68	1,279	3,544	-	439	394	244	321
Not reported	17,443	8,132	591	547	34	10	-	143	427	-	34	228	34	7,855

See Footnotes at end of Table

Table B-12. Number of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Type of Employer: 1982—continued

Field and Area of Critical National Interest	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Industrial	67,937	60,684	1,171	1,026	145	-	435	398	2,437	52	162	502	71	2,055
Energy and fuel	6,534	6,422	34	34	-	-	34	-	34	10	-	-	-	-
Health	1,886	1,258	-	-	-	-	333	177	18	-	66	-	-	42
Environment	2,451	2,177	-	-	-	-	-	-	196	-	-	8	-	68
Teaching	2,048	1,068	970	843	127	-	-	10	-	-	-	-	-	-
Education,non-teach	37	37	-	-	-	-	-	-	-	-	-	-	-	-
National defense	9,056	6,996	78	78	-	-	-	34	1,869	42	-	34	3	-
Crime prevention	285	109	-	-	-	-	-	34	-	-	-	109	-	34
Food	1,850	1,850	-	-	-	-	-	-	-	-	-	-	-	-
Other mineral resources	216	216	-	-	-	-	-	-	-	-	-	-	-	-
Community development	961	783	-	-	-	-	-	-	34	-	76	68	-	-
Housing	684	676	8	-	8	-	-	-	-	-	-	-	-	-
Does not apply	36,902	35,974	71	71	-	-	34	143	208	-	18	285	68	102
Not reported	5,016	3,086	10	-	10	-	34	-	76	-	-	-	-	1,809
Materials	22,886	19,181	1,670	1,652	18	-	-	214	1,220	-	71	34	127	368
Energy and fuel	4,524	3,507	675	657	18	-	-	86	170	-	68	-	18	-
Health	387	387	-	-	-	-	-	-	-	-	-	-	-	-
Environment	447	447	-	-	-	-	-	-	-	-	-	-	-	-
Teaching	565	-	565	565	-	-	-	-	-	-	-	-	-	-
Education,non-teach	27	27	-	-	-	-	-	-	-	-	-	-	-	-
National defense	4,851	3,794	52	52	-	-	-	34	826	-	-	-	109	34
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	165	165	-	-	-	-	-	-	-	-	-	-	-	-
Other mineral resources	1,080	906	68	68	-	-	-	34	68	-	3	-	-	-
Community development	78	44	-	-	-	-	-	-	-	-	-	34	-	-
Housing	68	68	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	9,487	9,026	310	310	-	-	-	42	101	-	-	-	-	8
Not reported	1,197	799	-	-	-	-	-	18	54	-	-	-	-	326
Mechanical	206,943	179,611	7,136	5,210	1,671	255	409	1,906	9,567	170	652	1,152	424	5,896
Energy and fuel	54,476	50,524	898	796	102	-	34	861	1,384	-	176	347	120	132
Health	4,467	3,753	86	86	-	-	305	-	237	-	52	-	34	-
Environment	6,834	6,358	34	34	-	-	-	-	68	-	110	175	-	68
Teaching	4,832	610	4,221	2,903	1,284	34	-	-	-	-	-	-	-	-
Education,non-teach	533	172	360	252	-	109	-	-	-	-	-	-	-	-
National defense	29,791	22,518	157	157	-	-	18	640	6,118	102	92	34	34	78
Crime prevention	203	203	-	-	-	-	-	-	-	-	-	-	-	-
Food	4,781	4,673	109	109	-	-	-	-	-	-	-	-	-	-
Other mineral resources	1,605	1,571	-	-	-	-	-	-	-	-	34	-	-	-
Community development	1,771	1,476	142	132	-	10	-	109	-	-	-	44	-	-
Housing	3,405	2,843	130	96	-	34	-	-	122	-	-	275	-	34
Does not apply	80,930	77,527	669	424	177	68	52	297	1,413	-	188	214	226	349
Not reported	13,314	7,364	330	221	109	-	-	-	224	68	-	62	10	5,235
Mining	7,334	6,249	311	303	8	-	-	109	307	-	158	52	34	114
Energy and fuel	3,816	3,626	42	34	8	-	-	-	78	-	18	18	-	34
Health	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environment	448	306	18	18	-	-	-	-	36	-	18	34	34	-
Teaching	109	-	109	109	-	-	-	-	-	-	-	-	-	-
Education,non-teach	-	-	-	-	-	-	-	-	-	-	-	-	-	-
National defense	207	143	34	34	-	-	-	-	30	-	-	-	-	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	42	42	-	-	-	-	-	-	-	-	-	-	-	-
Other mineral resources	1,933	1,544	109	109	-	-	-	109	102	-	70	-	-	-
Community development	71	8	-	-	-	-	-	-	11	-	52	-	-	-
Housing	60	60	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	317	298	-	-	-	-	-	-	18	-	-	-	-	-
Not reported	332	218	-	-	-	-	-	-	34	-	-	-	-	80
Nuclear	9,657	6,771	203	203	-	-	34	207	1,725	-	18	109	177	414
Energy and fuel	6,773	5,564	102	102	-	-	34	207	780	-	18	-	68	-
Health	126	-	34	34	-	-	-	-	92	-	-	-	-	-
Environment	86	18	-	-	-	-	-	-	68	-	-	-	-	-
Teaching	68	34	34	34	-	-	-	-	-	-	-	-	-	-
Education,non-teach	-	-	-	-	-	-	-	-	-	-	-	-	-	-
National defense	1,599	740	-	-	-	-	-	-	750	-	-	-	109	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mineral resources	18	18	-	-	-	-	-	-	-	-	-	-	-	-
Community development	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	324	181	34	34	-	-	-	-	-	-	-	109	-	-
Not reported	663	215	-	-	-	-	-	-	34	-	-	-	-	414
Petroleum	14,165	12,252	66	66	-	-	-	109	379	-	211	-	143	1,006
Energy and fuel	11,792	11,035	20	20	-	-	-	-	291	-	177	-	143	127
Health	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environment	179	127	-	-	-	-	-	-	18	-	34	-	-	-
Teaching	46	-	46	46	-	-	-	-	-	-	-	-	-	-
Education,non-teach	-	-	-	-	-	-	-	-	-	-	-	-	-	-
National defense	145	-	-	-	-	-	-	109	36	-	-	-	-	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mineral resources	144	144	-	-	-	-	-	-	-	-	-	-	-	-
Community development	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Housing	36	36	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	556	522	-	-	-	-	-	-	34	-	-	-	-	-
Not reported	1,267	388	-	-	-	-	-	-	-	-	-	-	-	879

See Footnotes at end of Table

Table B-12. Number of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Type of Employer: 1982—continued

Field and Area of Critical National Interest	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Other	222,939	178,557	6,877	5,714	719	244	803	2,981	12,240	746	5,528	3,446	1,292	10,880
Energy and fuel	36,177	32,771	788	677	34	78	113	505	849	-	357	298	429	88
Health	6,318	4,116	399	365	-	34	443	102	723	102	339	62	34	-
Environment	21,052	13,086	353	353	-	-	44	304	2,087	52	2,786	1,486	44	211
Teaching	3,855	1,058	2,797	2,363	433	-	-	-	-	-	-	-	-	-
Education, non-teach	1,657	480	881	739	109	34	-	143	-	-	109	34	-	-
National defense	38,006	30,082	346	346	-	-	-	948	5,913	548	58	-	43	88
Crime prevention	474	372	-	-	-	-	-	-	-	-	34	68	-	-
Food	4,462	3,855	154	154	-	-	-	-	348	-	37	34	34	-
Other mineral resources	1,447	1,275	143	143	-	-	-	-	30	-	-	-	-	-
Community development	4,739	3,451	43	43	-	-	34	70	148	-	150	608	68	166
Housing	5,114	4,845	-	-	-	-	34	34	63	-	18	86	34	-
Does not apply	80,032	73,995	451	405	-	46	136	865	1,810	44	1,368	542	538	284
Not reported	18,986	7,982	322	127	143	52	-	10	271	-	273	229	68	9,862
Life scientists	197,483	46,096	52,329	47,134	4,719	467	3,648	3,927	18,232	367	9,124	2,028	360	1,579
Energy and fuel	3,689	2,523	280	171	109	-	10	21	592	-	146	117	-	-
Health	30,885	9,689	12,086	12,035	62	-	3,168	1,862	2,414	228	981	228	43	176
Environment	24,720	5,565	2,593	2,571	21	-	21	912	9,485	10	5,016	807	65	247
Teaching	24,127	372	23,143	19,188	3,722	233	216	182	21	-	64	109	-	20
Education, non-teach	3,333	221	2,773	2,320	453	-	21	190	85	-	21	21	-	-
National defense	946	439	-	-	-	-	-	-	289	109	109	-	-	-
Crime prevention	332	-	-	-	-	-	-	-	130	-	166	36	-	-
Food	21,026	11,296	5,757	5,492	31	234	-	410	2,335	10	650	208	231	130
Other mineral resources	577	423	-	-	-	-	-	-	154	-	-	-	-	-
Community development	813	328	64	64	-	-	-	-	30	-	130	281	-	-
Housing	502	383	10	10	-	-	-	-	109	-	-	-	-	-
Does not apply	22,279	13,869	3,880	3,870	10	-	72	318	2,284	-	1,686	221	21	147
Not reported	4,253	988	1,723	1,412	311	-	140	31	325	10	155	21	-	859
Biologists	85,306	27,182	31,226	26,989	4,141	105	1,454	2,241	14,131	193	6,197	1,478	213	982
Energy and fuel	2,541	1,456	280	171	109	-	-	21	518	-	146	117	-	-
Health	14,992	5,737	4,730	4,678	52	-	1,323	894	1,330	55	666	198	21	29
Environment	21,019	4,613	2,142	2,120	21	-	21	741	8,541	10	3,921	739	43	247
Teaching	17,298	329	16,776	13,336	3,336	105	-	119	-	-	64	-	-	10
Education, non-teach	2,383	199	1,898	1,554	344	-	-	190	53	-	21	21	-	-
National defense	585	267	-	-	-	-	-	-	209	109	-	-	-	-
Crime prevention	301	-	-	-	-	-	-	-	130	-	156	15	-	-
Food	6,426	3,558	1,314	1,314	-	-	-	3	1,103	10	135	154	148	-
Other mineral resources	577	423	-	-	-	-	-	-	154	-	-	-	-	-
Community development	579	246	43	43	-	-	-	-	30	-	130	130	-	-
Housing	284	275	10	10	-	-	-	-	-	-	-	-	-	-
Does not apply	15,882	9,644	3,136	3,126	10	-	41	242	1,770	-	841	83	-	126
Not reported	2,436	432	907	638	268	-	68	31	284	10	115	21	-	570
Biochemists	9,626	2,625	5,210	5,182	19	-	499	393	726	-	112	-	-	82
Energy and fuel	164	130	-	-	-	-	-	-	33	-	-	-	-	-
Health	5,862	1,658	2,898	2,889	9	-	477	352	341	-	103	-	-	53
Environment	322	177	109	109	-	-	-	10	26	-	-	-	-	-
Teaching	1,638	-	1,638	1,629	9	-	-	-	-	-	-	-	-	-
Education, non-teach	48	-	48	48	-	-	-	-	-	-	-	-	-	-
National defense	67	8	-	-	-	-	-	-	58	-	-	-	-	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	577	224	204	204	-	-	-	-	148	-	-	-	-	-
Other mineral resources	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Community development	51	51	-	-	-	-	-	-	-	-	-	-	-	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	774	355	269	269	-	-	10	31	109	-	-	-	-	-
Not reported	104	21	43	43	-	-	12	-	9	-	9	-	-	10
Agricultural scientists	27,836	12,953	8,418	7,643	540	234	-	602	2,520	-	2,567	348	125	303
Energy and fuel	958	918	-	-	-	-	-	-	40	-	-	-	-	-
Health	274	113	130	130	-	-	-	-	31	-	-	-	-	-
Environment	3,334	762	321	321	-	-	-	162	917	-	1,096	55	21	-
Teaching	2,625	43	2,442	1,957	367	118	-	9	21	-	-	109	-	-
Education, non-teach	837	21	784	675	109	-	-	-	32	-	-	-	-	-
National defense	252	143	-	-	-	-	-	-	-	-	109	-	-	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	13,535	7,204	4,091	3,952	21	117	-	407	1,082	-	506	53	83	130
Other mineral resources	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Community development	162	31	21	21	-	-	-	-	-	-	-	109	-	-
Housing	218	109	-	-	-	-	-	-	109	-	-	-	-	-
Does not apply	4,808	3,227	382	382	-	-	-	24	276	-	835	21	21	21
Not reported	835	383	247	204	43	-	-	-	32	-	21	-	-	152
Medical scientists	14,718	3,137	7,486	7,310	20	127	1,686	692	855	173	248	203	21	232
Energy and fuel	26	17	-	-	-	-	10	-	-	-	-	-	-	-
Health	9,737	2,181	4,337	4,337	-	-	1,368	616	703	173	210	32	21	95
Environment	45	12	21	21	-	-	-	-	-	-	-	12	-	-
Teaching	2,566	-	2,286	2,267	10	10	216	54	-	-	-	-	-	10
Education, non-teach	64	-	43	43	-	-	21	-	-	-	-	-	-	-
National defense	43	21	-	-	-	-	-	-	21	-	-	-	-	-
Crime prevention	31	-	-	-	-	-	-	-	-	-	10	21	-	-
Food	489	310	148	21	10	117	-	-	21	-	9	-	-	-
Other mineral resources	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Community development	21	-	-	-	-	-	-	-	-	-	-	21	-	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	815	444	93	93	-	-	21	21	109	-	9	117	-	-
Not reported	876	152	527	527	-	-	59	-	-	-	10	-	-	128

See Footnotes at end of Table

Table B-12. Number of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Type of Employer: 1982—continued

Field and Area of Critical National Interest	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Psychologists	**84,140**	**23,222**	**36,772**	**21,486**	**3,240**	**12,046**	**10,964**	**4,919**	**1,527**	**270**	**2,743**	**1,813**	**486**	**1,454**
Energy and fuel	1,586	1,534	-	-	-	-	-	-	-	-	51	-	-	-
Health	27,111	8,704	4,750	3,894	9	847	8,664	1,942	631	54	1,101	966	109	101
Environment	829	572	247	247	-	-	-	-	-	-	-	-	-	9
Teaching	15,722	518	14,683	12,311	[illegible]	587	118	127	11	-	80	64	109	12
Education, non-teach	15,322	612	13,124	2,889	906	[illegible]	147	845	18	-	53	209	130	184
National defense	1,371	610	109	109	-	-	-	154	347	152	-	-	-	-
Crime prevention	1,531	12	218	218	-	-	-	264	21	-	862	154	-	-
Food	1,313	1,204	-	-	-	-	-	-	-	-	109	-	-	-
Other mineral resources	109	109	-	-	-	-	-	-	-	-	-	-	-	-
Community development	2,727	452	477	354	109	14	638	723	-	-	315	68	-	54
Housing	399	218	181	181	-	-	-	-	-	-	-	-	-	-
Does not apply	12,607	7,924	1,909	993	128	788	854	686	500	64	145	353	54	117
Not reported	3,514	753	1,073	292	301	481	543	176	-	-	27	-	54	887
Social scientists	**116,109**	**44,782**	**41,381**	**36,789**	**4,136**	**456**	**3,007**	**7,578**	**8,225**	**38**	**4,203**	**3,287**	**1,532**	**2,168**
Energy and fuel	5,443	3,880	442	442	-	-	34	115	762	-	274	24	120	12
Health	10,411	2,110	1,985	1,931	-	54	2,688	2,074	450	12	382	531	154	26
Environment	3,110	1,170	530	530	-	-	-	215	583	-	429	41	12	121
Teaching	26,766	750	27,676	24,661	2,872	143	-	36	24	-	121	-	36	124
Education, non-teach	6,516	396	4,742	3,665	818	259	-	757	93	-	247	206	75	-
National defense	2,491	1,178	316	316	-	-	-	118	867	12	-	-	-	-
Crime prevention	2,021	556	497	497	-	-	14	72	212	-	283	373	-	12
Food	3,710	2,670	296	296	-	-	-	175	461	-	35	-	73	-
Other mineral resources	397	290	36	36	-	-	-	-	61	-	11	-	-	-
Community development	6,671	2,094	816	804	12	-	54	1,730	456	-	565	655	15	285
Housing	2,085	1,297	481	481	-	-	-	-	108	-	154	-	25	-
Does not apply	39,846	26,993	2,641	2,489	151	-	37	2,253	3,856	12	1,663	1,230	972	179
Not reported	4,654	1,536	904	621	283	-	161	24	290	-	39	228	51	1,411
Economists	**46,966**	**23,322**	**13,220**	**11,841**	**1,379**	-	**161**	**1,352**	**5,295**	**12**	**835**	**160**	**1,279**	**1,241**
Energy and fuel	3,531	2,243	202	202	-	-	-	87	678	-	166	24	120	12
Health	1,553	860	166	166	-	-	151	171	131	-	48	-	24	-
Environment	1,006	302	164	164	-	-	-	148	226	-	48	-	12	109
Teaching	10,442	133	10,114	8,747	1,367	-	-	-	24	-	12	-	36	124
Education, non-teach	1,410	133	1,025	1,025	-	-	-	127	63	-	24	-	39	-
National defense	844	519	15	15	-	-	-	70	241	-	-	-	-	-
Crime prevention	371	153	124	124	-	-	-	-	94	-	-	-	-	-
Food	2,580	1,618	260	260	-	-	-	145	461	-	35	-	61	-
Other mineral resources	339	270	24	24	-	-	-	-	35	-	11	-	-	-
Community development	1,466	930	73	73	-	-	-	46	258	-	100	60	-	-
Housing	1,092	705	241	241	-	-	-	-	108	-	12	-	25	-
Does not apply	20,123	14,840	717	705	12	-	-	547	2,836	12	368	65	911	27
Not reported	2,204	827	191	191	-	-	-	12	131	-	12	11	51	969
Sociologists / anthropologists	**22,883**	**7,540**	**10,901**	**9,757**	**990**	**153**	**378**	**1,643**	**814**	-	**875**	**207**	**184**	**453**
Energy and fuel	626	581	23	23	-	-	-	-	24	-	-	-	-	-
Health	2,411	76	1,150	1,150	-	-	378	502	130	-	54	-	109	12
Environment	754	355	57	57	-	-	-	24	124	-	159	24	-	12
Teaching	7,173	259	6,890	6,270	478	143	-	24	-	-	-	-	-	-
Education, non-teach	1,255	158	974	734	230	11	-	42	18	-	27	-	36	-
National defense	342	151	24	24	-	-	-	-	166	-	-	-	-	-
Crime prevention	704	27	361	361	-	-	-	72	-	-	218	15	-	12
Food	743	677	24	24	-	-	-	30	-	-	-	-	12	-
Other mineral resources	27	-	12	12	-	-	-	-	15	-	-	-	-	-
Community development	1,454	556	186	174	12	-	-	389	-	-	-	24	15	285
Housing	12	12	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	6,510	4,302	789	777	12	-	-	549	312	-	402	144	12	-
Not reported	979	385	412	152	259	-	-	12	24	-	15	-	-	133
Other social scientists	**48,142**	**13,830**	**17,141**	**15,072**	**1,767**	**303**	**2,478**	**4,582**	**2,127**	**24**	**2,494**	**2,921**	**70**	**474**
Energy and fuel	1,264	836	218	218	-	-	34	28	60	-	109	-	-	-
Health	6,447	1,174	667	612	-	54	2,159	1,400	189	12	281	531	21	14
Environment	1,347	513	309	309	-	-	-	44	243	-	222	17	-	-
Teaching	11,151	358	10,672	9,644	1,027	-	-	12	-	-	109	-	-	-
Education, non-teach	3,850	105	2,743	1,906	588	249	-	588	12	-	196	206	-	-
National defense	1,304	506	277	277	-	-	-	48	459	12	-	-	-	-
Crime prevention	946	378	12	12	-	-	14	-	118	-	66	358	-	-
Food	387	375	12	12	-	-	-	-	-	-	-	-	-	-
Other mineral resources	32	20	-	-	-	-	-	-	12	-	-	-	-	-
Community development	3,749	608	557	557	-	-	54	1,295	188	-	465	571	-	-
Housing	961	580	240	240	-	-	-	-	-	-	142	-	-	-
Does not apply	13,213	8,050	1,135	1,007	128	-	37	1,167	710	-	893	1,021	48	152
Not reported	1,470	325	302	278	24	-	181	-	126	-	12	218	-	306

NOTE: Detail may not add to total due to rounding.

Source: National Science Foundation.

Table B-13. Number of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Primary Work Activity: 1982

Field and Area of Critical National Interest	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Reports, stat'l work, & computer appl.	Other	Not reported
		Total	Basic research	Applied research	Development and design	Total	Of research & develop.	Of other than R & D						
Total, all fields	1,790,344	494,792	47,614	97,361	349,818	534,017	169,796	364,220	134,463	88,363	210,067	149,340	81,486	78,792
Energy and fuel	267,299	83,560	3,802	18,095	61,663	89,161	26,939	62,222	1,770	19,209	44,158	15,590	11,573	2,250
Health	109,773	34,900	13,318	11,394	10,187	27,491	10,307	17,184	6,312	4,972	8,299	7,583	19,051	1,166
Environment	101,862	27,336	3,225	9,867	14,244	35,310	8,542	26,768	1,903	9,486	17,013	6,778	2,591	1,464
Teaching	133,836	11,210	7,441	2,683	1,086	8,290	2,367	5,923	109,076	586	665	1,454	1,423	1,154
Education,non-teach	36,626	4,018	1,385	1,242	1,391	14,667	2,781	11,886	5,528	1,806	1,445	2,999	7,879	485
National defense	228,506	96,005	2,976	16,615	76,415	75,517	42,738	32,779	821	5,267	26,733	19,028	3,343	1,791
Crime prevention	8,186	1,598	104	597	897	2,498	664	1,834	287	692	421	1,579	949	163
Food	50,781	16,583	1,724	6,877	7,982	19,963	5,005	14,958	755	1,279	7,809	2,593	1,610	191
Other mineral resources	17,727	5,845	533	1,911	3,402	5,259	1,875	3,384	307	1,537	2,601	1,154	771	252
Community development	42,331	7,673	131	1,176	6,366	16,944	2,399	14,545	774	3,771	6,281	3,751	2,886	451
Housing	33,014	5,383	74	385	4,924	11,678	1,517	10,161	402	6,252	6,286	1,308	1,358	367
Does not apply	628,815	190,170	11,776	24,727	153,667	204,988	61,382	143,606	3,623	29,502	83,221	83,171	26,120	8,041
Not reported	98,561	10,503	1,124	1,693	7,686	12,270	3,080	9,190	2,905	2,245	5,135	2,351	2,133	61,019
Physical scientists	115,821	45,884	10,868	19,862	15,709	34,292	18,666	15,626	16,265	1,444	11,807	2,047	1,288	2,887
Energy and fuel	14,886	6,974	1,412	3,651	1,911	5,520	3,802	1,718	393	407	1,089	293	150	70
Health	10,423	4,886	1,086	2,696	1,104	2,881	1,878	1,003	192	-	1,732	301	328	24
Environment	10,137	3,150	383	1,680	1,087	3,051	1,429	1,622	218	324	2,721	331	77	286
Teaching	18,017	1,920	1,602	201	117	669	258	411	15,129	-	109	-	109	81
Education,non-teach	1,792	469	302	109	58	1,067	126	941	36	-	126	94	-	-
National defense	12,067	6,268	960	3,103	2,205	4,331	3,114	1,217	-	221	808	327	-	143
Crime prevention	442	77	17	61	-	12	-	12	-	12	111	136	92	-
Food	4,329	1,674	237	861	575	1,779	637	1,142	109	58	692	17	-	-
Other mineral resources	1,837	810	189	290	331	616	235	381	-	-	221	96	12	83
Community development	382	286	-	150	118	-	-	-	-	-	12	-	113	-
Housing	611	117	-	-	117	385	58	326	-	-	109	-	-	-
Does not apply	36,803	17,953	4,554	5,825	7,574	13,305	6,944	6,361	75	422	3,645	450	405	346
Not reported	4,245	1,047	100	438	510	577	86	491	203	-	434	-	-	1,984
Chemists	78,028	28,061	4,862	12,884	11,846	23,886	11,861	12,044	9,863	676	10,230	1,400	1,099	1,963
Energy and fuel	9,032	3,945	729	1,835	1,381	3,279	2,088	1,191	228	167	983	232	150	70
Health	9,079	4,245	748	2,514	983	2,510	1,550	960	167	-	1,654	276	202	24
Environment	7,431	2,183	233	1,031	919	2,281	1,117	1,164	109	130	2,271	221	58	177
Teaching	10,409	773	514	201	58	651	258	393	8,985	-	-	-	-	-
Education,non-teach	1,158	359	226	75	58	615	-	615	-	-	126	58	-	-
National defense	4,285	1,440	58	772	610	2,023	1,315	708	-	-	609	105	-	109
Crime prevention	356	50	17	34	-	-	-	-	-	-	99	128	80	-
Food	4,057	1,557	237	745	575	1,733	591	1,142	109	58	583	17	-	-
Other mineral resources	1,408	530	92	183	255	495	235	260	-	-	221	67	12	83
Community development	250	126	-	117	9	-	-	-	-	-	12	-	113	-
Housing	393	117	-	-	117	276	58	218	-	-	-	-	-	-
Does not apply	27,019	12,731	1,768	4,759	6,205	9,505	4,497	5,008	75	320	3,259	298	394	346
Not reported	3,150	943	41	429	473	437	52	385	192	-	434	-	-	1,144
Physicists / astronomers	25,862	10,356	4,716	3,441	2,199	7,431	5,272	2,159	5,680	319	625	359	226	807
Energy and fuel	3,388	1,545	529	831	185	1,681	1,377	304	58	58	9	37	-	-
Health	766	163	24	80	58	419	394	24	-	-	66	-	117	-
Environment	510	237	24	193	19	194	109	86	-	42	9	18	-	9
Teaching	6,823	1,129	1,071	-	58	-	-	-	5,586	-	-	-	109	-
Education,non-teach	330	58	58	-	-	218	109	109	36	-	-	18	-	-
National defense	5,587	3,236	617	1,673	946	1,779	1,338	441	-	185	153	197	-	34
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	34	-	-	-	-	34	34	-	-	-	-	-	-	-
Other mineral resources	66	66	-	-	66	-	-	-	-	-	-	-	-	-
Community development	133	133	-	24	109	-	-	-	-	-	-	-	-	-
Housing	109	-	-	-	-	-	-	-	-	-	109	-	-	-
Does not apply	7,149	3,690	2,334	640	716	3,060	1,878	1,182	-	34	276	89	-	-
Not reported	904	95	58	-	36	46	34	12	-	-	-	-	-	763
Other physical scientists	11,891	6,237	1,424	2,947	1,866	2,966	1,543	1,424	811	448	962	287	51	238
Energy and fuel	2,475	1,464	154	964	345	560	337	222	109	181	117	25	-	-
Health	578	458	294	102	63	52	34	18	24	-	9	24	9	-
Environment	2,198	730	106	475	149	576	204	373	109	152	440	92	18	60
Teaching	785	18	18	-	-	18	-	18	558	-	109	-	-	81
Education,non-teach	304	52	18	34	-	234	17	218	-	-	-	18	-	-
National defense	2,225	1,590	285	657	646	529	461	68	-	36	46	24	-	-
Crime prevention	86	27	-	27	-	12	-	12	-	12	12	12	12	-
Food	238	117	-	117	-	12	12	-	-	-	109	-	-	-
Other mineral resources	362	212	97	107	8	121	-	121	-	-	-	29	-	-
Community development	8	8	-	8	-	-	-	-	-	-	-	-	-	-
Housing	109	-	-	-	-	109	-	109	-	-	-	-	-	-
Does not apply	2,435	1,532	452	427	653	650	479	171	-	68	110	84	12	-
Not reported	191	9	-	9	-	94	-	94	11	-	-	-	-	77
Mathematical scientists	43,844	6,190	1,830	2,363	1,996	12,669	5,107	7,562	16,240	756	1,627	5,139	384	947
Energy and fuel	1,873	577	132	177	268	745	191	553	52	36	143	321	-	-
Health	2,866	278	54	200	24	1,085	429	656	109	36	34	1,343	-	-
Environment	520	94	18	47	29	86	52	34	18	58	109	155	-	-
Teaching	17,431	1,350	1,066	271	-	416	254	163	15,514	-	-	109	18	15
Education,non-teach	1,264	81	18	10	34	646	103	544	374	-	-	183	-	-
National defense	5,752	2,006	189	780	1,037	2,611	1,515	1,096	18	239	136	732	-	12
Crime prevention	19	9	-	9	-	-	-	-	-	-	-	9	-	-
Food	820	36	18	18	-	279	36	243	-	36	252	217	-	-
Other mineral resources	127	-	-	-	-	127	127	-	-	-	-	-	-	-
Community development	532	36	18	18	-	68	45	23	-	-	228	201	-	-
Housing	240	10	-	-	10	121	12	109	-	-	109	-	-	-
Does not apply	11,380	1,667	277	816	574	6,366	2,344	4,022	83	337	618	1,500	366	141
Not reported	1,102	55	18	18	20	109	-	109	72	18	-	69	-	779

See Footnotes at end of Table

Table B-13. Number of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Primary Work Activity: 1982—continued

Field and Area of Critical National Interest	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Reports, stat'l work,& computer appl.	Other	Not reported
		Total	Basic research	Applied research	Development and design	Total	Of research & develop.	Of other than R & D						
Mathematicians	36,946	5,336	1,786	1,886	1,855	11,491	4,420	7,070	14,758	466	1,404	2,279	384	838
Energy and fuel	1,484	479	132	114	232	715	173	542	52	-	143	96	-	-
Health	1,297	77	27	36	15	802	265	537	-	18	-	400	-	-
Environment	320	47	18	-	29	86	52	34	-	58	109	20	-	-
Teaching	15,962	1,215	1,088	127	-	416	254	163	14,298	-	-	-	18	15
Education, non-teach	1,012	52	18	-	34	619	76	544	265	-	-	76	-	-
National defense	5,453	1,923	189	733	1,001	2,611	1,515	1,096	-	220	117	570	-	12
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	669	18	18	-	-	262	36	226	-	-	252	137	-	-
Other mineral resources	109	-	-	-	-	109	109	-	-	-	-	-	-	-
Community development	422	-	-	-	-	68	45	23	-	-	228	127	-	-
Housing	240	10	-	-	10	121	12	109	-	-	103	-	-	-
Does not apply	9,042	1,459	277	858	514	5,574	1,865	3,686	71	159	[illegible]	833	366	132
Not reported	936	55	18	18	20	109	-	109	72	-	-	20	-	680
Statisticians	7,000	864	45	669	141	1,168	686	482	1,481	303	223	2,861	-	109
Energy and fuel	389	99	-	63	36	30	18	12	-	36	-	225	-	-
Health	1,586	201	27	165	9	283	164	119	100	18	34	943	-	-
Environment	200	47	-	47	-	-	-	-	18	-	-	135	-	-
Teaching	1,460	144	-	144	-	-	-	-	1,216	-	-	109	-	-
Education, non-teach	253	10	-	10	-	27	27	-	109	-	-	107	-	-
National defense	299	83	-	48	36	-	-	-	18	18	18	162	-	-
Crime prevention	19	9	-	9	-	-	-	-	-	-	-	9	-	-
Food	152	18	-	18	-	18	-	18	-	36	-	80	-	-
Other mineral resources	18	-	-	-	-	18	18	-	-	-	-	-	-	-
Community development	110	36	18	18	-	-	-	-	-	-	-	74	-	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	2,337	206	-	147	60	793	460	333	12	178	171	967	-	9
Not reported	186	-	-	-	-	-	-	-	-	18	-	49	-	100
Computer specialists	166,576	30,155	857	3,060	26,238	28,453	10,586	17,868	4,526	9,775	4,313	85,942	1,977	3,417
Energy and fuel	9,764	2,172	-	332	1,841	1,161	511	650	-	793	389	5,085	47	106
Health	6,616	1,405	34	139	1,233	1,265	358	909	10	415	182	3,321	20	18
Environment	1,805	423	-	109	314	158	54	104	-	117	119	780	-	-
Teaching	6,148	531	251	82	198	853	273	581	3,576	165	-	641	163	218
Education, non-teach	4,782	457	-	10	447	1,388	547	841	489	374	109	1,853	12	-
National defense	17,809	4,311	46	379	3,886	2,900	1,618	1,282	62	508	454	9,414	120	20
Crime prevention	1,912	314	-	92	222	153	36	117	-	414	10	1,022	-	-
Food	2,168	337	-	-	337	243	122	122	-	56	36	1,496	-	-
Other mineral resources	654	156	-	-	156	145	109	36	-	-	-	317	-	36
Community development	3,260	633	-	-	633	371	118	253	-	128	108	2,013	-	10
Housing	584	72	-	-	72	119	10	109	-	-	-	373	-	-
Does not apply	106,492	18,842	526	1,898	16,418	19,427	6,750	12,677	359	6,765	2,647	58,511	1,602	339
Not reported	4,803	502	-	20	482	270	81	188	30	41	271	1,005	13	2,671
Environmental scientists	42,387	17,305	3,518	9,264	4,502	11,080	[illegible]	6,570	2,701	3,697	3,843	2,488	370	953
Energy and fuel	22,056	9,833	847	5,515	3,471	6,236	2,643	3,597	109	2,368	2,329	783	192	224
Health	83	18	-	18	-	29	11	18	-	-	36	-	-	-
Environment	6,104	2,741	1,067	1,343	312	1,135	601	533	236	564	504	815	36	74
Teaching	2,927	512	356	156	-	290	18	272	2,124	-	-	-	-	-
Education, non-teach	179	80	80	-	-	29	18	11	71	-	-	-	-	-
National defense	1,567	971	134	649	188	415	324	90	-	18	118	48	-	18
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	477	119	-	79	40	294	-	294	-	18	18	27	-	-
Other mineral resources	3,606	1,574	242	962	371	959	401	558	-	385	439	185	18	47
Community development	303	43	18	21	3	86	52	34	-	-	36	139	-	-
Housing	286	34	-	34	-	143	-	143	-	54	54	-	-	-
Does not apply	3,535	1,207	760	411	36	1,242	371	871	34	217	263	430	124	18
Not reported	1,263	173	14	76	83	221	73	149	127	73	45	52	-	572
Earth scientists	35,850	14,212	2,078	7,969	4,144	9,759	3,875	5,884	2,440	3,482	3,296	1,504	334	825
Energy and fuel	21,784	9,747	828	5,447	3,471	6,144	2,605	3,538	109	2,314	2,292	783	192	224
Health	73	18	-	18	-	18	-	18	-	-	36	-	-	-
Environment	2,842	1,311	460	729	122	660	384	276	109	439	183	140	-	-
Teaching	2,628	295	13[illegible]	156	-	290	18	272	2,043	-	-	-	-	-
Education, non-teach	121	21	2[illegible]	-	-	29	18	11	71	-	-	-	-	-
National defense	690	416	6[illegible]	296	54	181	163	18	-	18	63	12	-	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	277	83	-	61	21	167	-	167	-	-	18	9	-	-
Other mineral resources	3,606	1,574	242	962	371	959	401	558	-	385	439	185	18	47
Community development	255	24	-	21	3	68	34	34	-	-	36	127	-	-
Housing	286	34	-	34	-	143	-	143	-	54	54	-	-	-
Does not apply	2,187	516	309	169	18	915	197	718	-	217	148	269	124	-
Not reported	1,102	173	14	76	83	185	54	130	109	54	27	-	-	554
Oceanographers	1,649	1,019	380	441	198	385	215	169	45	-	95	65	-	40
Energy and fuel	79	36	18	18	-	43	18	24	-	-	-	-	-	-
Health	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environment	752	545	297	113	135	127	18	109	-	-	58	18	-	4
Teaching	27	-	-	-	-	-	-	-	27	-	-	-	-	-
Education, non-teach	-	-	-	-	-	-	-	-	-	-	-	-	-	-
National defense	569	299	11	244	45	197	161	36	-	-	18	36	-	18
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	36	36	-	18	18	-	-	-	-	-	-	-	-	-
Other mineral resources	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Community development	18	18	18	-	-	-	-	-	-	-	-	-	-	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	95	84	36	48	-	-	-	-	-	-	-	11	-	-
Not reported	73	-	-	-	-	18	18	-	18	-	18	-	-	18

See Footnotes at end of Table

Table B-13. Number of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Primary Work Activity: 1982—continued

Field and Area of Critical National Interest	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Reports, stat'l work, & computer appl.	Other	Not reported
		Total	Basic research	Applied research	Development and design	Total	Of research & develop.	Of other than R & D						
Atmospheric scientists	4,907	2,074	1,079	834	161	937	420	518	215	215	453	889	36	88
Energy and fuel	193	50	-	50	-	52	18	34	-	54	36	-	-	-
Health	11	-	-	-	-	11	11	-	-	-	-	-	-	-
Environment	2,510	885	329	501	54	348	200	149	127	124	263	657	36	70
Teaching	272	218	218	-	-	-	-	-	54	-	-	-	-	-
Education, non-teach	58	58	58	-	-	-	-	-	-	-	-	-	-	-
National defense	328	256	58	109	88	36	-	36	-	-	36	-	-	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	163	-	-	-	-	127	-	127	-	18	-	18	-	-
Other mineral resources	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Community development	30	-	-	-	-	18	18	-	-	-	-	12	-	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	1,254	607	415	174	18	327	174	153	34	-	117	151	-	18
Not reported	88	-	-	-	-	18	-	18	-	18	-	52	-	-
Engineers	1,050,872	331,776	4,693	34,333	292,750	332,074	107,257	224,817	20,206	59,154	169,864	40,508	36,070	61,217
Energy and fuel	207,993	62,217	954	7,459	53,804	70,739	18,877	51,862	1,181	14,668	38,754	8,073	10,556	1,805
Health	21,358	7,006	273	673	6,061	7,347	1,957	5,390	197	1,648	3,943	563	433	219
Environment	54,857	13,240	269	1,540	11,431	19,024	3,663	15,361	433	6,545	10,305	2,543	2,042	725
Teaching	20,700	1,394	44	626	724	2,752	810	1,941	14,980	102	521	441	155	355
Education, non-teach	5,441	944	169	184	592	2,865	544	2,321	559	227	354	266	80	135
National defense	186,453	80,851	1,441	10,685	68,724	63,001	35,374	27,627	488	4,249	24,928	8,283	3,066	1,586
Crime prevention	1,930	580	-	-	580	791	504	287	-	211	170	90	80	-
Food	16,938	5,992	12	651	5,328	6,249	1,541	4,708	117	435	3,260	339	400	147
Other mineral resources	10,419	3,174	102	594	2,478	3,099	859	2,240	285	981	1,81[illegible]	494	480	86
Community development	27,633	6,000	42	554	5,404	10,962	1,287	9,678	10	3,363	5,452	1,193	333	319
Housing	28,349	4,749	34	136	4,580	9,853	1,280	8,573	-	6,105	5,407	848	1,129	258
Does not apply	394,073	138,189	1,228	10,473	126,489	126,830	38,294	88,536	925	18,751	71,030	16,390	16,198	5,760
Not reported	74,727	7,428	125	757	6,545	8,563	2,266	6,297	1,051	1,672	3,929	984	1,079	49,821
Aeronautical / Astronautical	46,207	20,250	362	3,637	16,251	14,955	9,513	5,442	625	808	4,188	2,583	391	2,405
Energy and fuel	2,214	541	8	96	437	1,224	859	365	-	143	178	60	34	34
Health	44	34	-	34	-	10	-	10	-	-	-	-	-	-
Environment	258	136	-	68	68	122	88	34	-	-	-	-	-	-
Teaching	806	176	-	176	-	109	-	109	412	-	-	-	-	109
Education, non-teach	286	-	-	-	-	177	-	177	-	8	-	-	-	101
National defense	26,659	13,281	180	2,165	10,936	8,700	6,351	2,349	34	322	2,764	1,232	110	216
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	135	34	-	-	34	101	-	101	-	-	-	-	-	-
Other mineral resources	127	-	-	-	-	127	-	127	-	-	-	-	-	-
Community development	120	86	-	-	86	34	-	34	-	-	-	-	-	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	12,639	5,733	162	1,080	4,491	4,046	2,080	1,967	36	135	1,179	1,195	214	102
Not reported	2,719	230	12	18	200	305	136	170	143	-	68	76	34	1,863
Chemical	61,277	21,754	159	2,732	18,863	22,268	7,357	14,910	972	1,457	9,399	1,884	963	2,580
Energy and fuel	20,410	7,349	70	1,110	6,169	7,672	2,389	5,283	94	686	2,747	1,314	369	178
Health	2,182	886	-	86	800	804	341	463	-	104	388	-	-	-
Environment	6,254	2,338	-	248	2,090	2,144	803	1,342	-	170	1,245	84	170	102
Teaching	1,069	9	-	9	-	177	-	177	741	-	34	-	-	109
Education, non-teach	109	-	-	-	-	-	-	-	109	-	-	-	-	-
National defense	2,837	1,023	-	180	843	1,084	714	370	-	34	551	78	34	34
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	2,616	865	-	179	685	1,300	436	863	-	34	418	-	-	-
Other mineral resources	1,349	460	-	136	324	565	396	170	-	34	256	34	-	-
Community development	143	-	-	-	-	109	-	109	-	-	34	-	-	-
Housing	240	188	-	-	188	18	-	18	-	-	34	-	-	-
Does not apply	20,942	8,107	70	766	7,270	7,816	2,181	5,636	12	327	3,554	374	399	353
Not reported	3,126	530	18	18	493	579	98	481	17	68	138	-	12	1,784
Civil	145,956	25,129	265	2,094	22,770	52,154	6,316	45,838	2,363	22,180	27,857	5,620	1,950	8,703
Energy and fuel	21,866	5,820	34	332	5,454	7,529	1,464	6,065	34	2,368	4,578	891	418	228
Health	2,245	221	-	-	221	985	34	951	-	518	445	68	-	8
Environment	13,943	2,351	142	128	2,081	5,140	569	4,570	109	2,731	2,507	751	185	170
Teaching	2,481	120	10	102	8	319	177	142	1,896	34	102	10	-	-
Education, non-teach	1,121	73	-	34	39	755	218	537	117	143	34	-	-	-
National defense	5,650	1,292	-	146	1,146	2,137	306	1,830	-	697	1,222	222	9	70
Crime prevention	86	18	-	-	18	-	-	-	-	34	34	-	-	-
Food	964	188	-	-	188	274	68	206	-	78	356	68	-	-
Other mineral resources	1,815	476	68	-	409	569	52	517	-	443	258	34	34	-
Community development	16,596	3,005	-	307	2,698	6,214	507	5,707	-	2,945	3,453	605	108	266
Housing	15,953	2,155	-	68	2,087	5,553	602	4,950	-	4,299	2,928	607	264	148
Does not apply	52,581	8,788	11	802	7,975	20,859	2,048	18,811	47	7,037	11,337	2,356	931	1,227
Not reported	10,655	623	-	177	447	1,822	270	1,552	151	854	602	18	-	6,586
Electrical / Electronic	245,781	100,718	1,680	9,741	89,296	73,061	35,540	37,521	4,678	8,246	33,984	7,883	3,633	13,789
Energy and fuel	39,411	13,135	151	1,116	11,868	12,142	2,647	9,495	305	3,048	7,814	1,750	1,045	172
Health	3,682	1,476	185	170	1,121	1,153	435	719	43	34	924	34	19	-
Environment	2,906	1,324	68	120	1,136	966	349	618	-	251	331	34	-	-
Teaching	4,821	511	-	94	417	439	439	-	3,470	-	179	68	143	10
Education, non-teach	1,672	538	135	80	323	498	-	498	281	34	184	34	68	34
National defense	67,052	32,677	606	4,224	27,844	22,834	14,708	8,127	134	1,298	6,879	2,226	588	416
Crime prevention	882	385	-	-	385	429	362	68	-	-	34	-	34	-
Food	1,922	1,130	-	229	902	325	36	289	-	18	346	68	34	-
Other mineral resources	684	275	-	10	265	170	-	170	-	52	154	34	-	-
Community development	3,155	1,128	-	195	934	1,106	272	834	-	113	678	111	-	18
Housing	2,790	595	34	-	561	878	229	650	-	565	639	44	68	-
Does not apply	99,362	45,278	481	3,282	41,515	30,312	15,369	14,943	149	2,863	15,241	3,026	1,526	1,167
Not reported	17,443	2,265	18	222	2,025	1,798	686	1,112	298	170	591	264	109	11,951

See Footnotes at end of Table

Table B-13. Number of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Primary Work Activity: 1982—continued

Field and Area of Critical National Interest	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Reports, stat'l work, & computer appl.	Other	Not reported
		Total	Basic research	Applied research	Development and design	Total	Of research & develop.	Of other than R & D						
Industrial	67,837	12,796	34	458	12,302	24,410	3,335	21,075	1,425	2,248	17,004	4,649	1,721	2,785
Energy and fuel	6,534	1,094	-	8	1,086	2,784	544	2,241	3	206	1,668	412	297	68
Health	1,896	405	-	58	347	714	88	626	-	241	216	125	18	177
Environment	2,451	430	-	-	430	1,137	143	995	-	34	671	144	34	-
Teaching	2,048	109	-	-	109	446	-	446	1,344	34	69	36	-	10
Education, non-teach	37	-	-	-	-	3	-	3	-	-	-	34	-	-
National defense	9,058	1,277	-	86	1,191	3,646	489	3,157	34	322	2,760	805	146	68
Crime prevention	265	-	-	-	-	252	143	109	-	-	-	-	34	-
Food	1,850	357	-	34	323	913	68	845	-	34	353	136	12	46
Other mineral resources	216	3	-	-	3	78	-	78	-	-	68	34	-	34
Community development	961	203	-	-	203	577	-	577	-	-	94	78	8	-
Housing	684	86	-	-	86	348	-	348	-	18	178	8	46	-
Does not apply	36,902	8,328	34	262	8,032	12,722	1,719	11,003	44	1,346	10,556	2,622	948	336
Not reported	5,016	503	-	10	493	791	143	649	-	10	371	216	179	2,046
Materials	22,906	7,831	420	2,182	5,248	7,791	3,727	4,064	633	963	4,169	274	342	893
Energy and fuel	4,524	1,728	218	375	1,135	1,569	956	613	-	208	926	28	68	-
Health	397	161	-	101	60	218	109	109	-	-	18	-	-	-
Environment	447	136	-	-	136	102	34	68	34	-	178	-	-	-
Teaching	585	-	-	-	-	-	-	-	585	-	-	-	-	-
Education, non-teach	27	27	-	-	27	-	-	-	-	-	-	-	-	-
National defense	4,851	2,260	135	643	1,481	1,688	1,056	631	-	78	722	68	34	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	165	63	-	18	45	68	-	68	-	-	34	-	-	-
Other mineral resources	1,080	405	-	206	199	294	178	116	34	68	246	34	-	-
Community development	78	-	-	-	-	10	10	-	-	-	68	-	-	-
Housing	68	34	-	34	-	-	-	-	-	-	34	-	-	-
Does not apply	9,487	2,873	68	733	2,072	3,754	1,328	2,425	-	549	1,901	145	132	135
Not reported	1,197	146	-	52	94	88	54	34	-	52	44	-	109	758
Mechanical	206,943	83,225	686	5,412	77,128	68,035	21,504	46,531	4,670	7,266	27,448	3,487	2,836	10,173
Energy and fuel	54,476	19,779	206	1,952	17,621	19,388	5,556	13,831	263	3,310	9,443	896	999	386
Health	4,467	1,899	-	68	1,831	1,398	392	1,007	-	170	856	11	34	-
Environment	6,834	2,586	-	172	2,414	2,305	777	1,528	46	212	1,345	68	170	102
Teaching	4,832	367	34	143	190	696	142	554	3,618	-	34	-	-	117
Education, non-teach	533	94	-	34	60	404	-	404	-	-	34	-	-	-
National defense	29,791	14,892	182	1,224	13,486	10,805	5,721	5,084	135	398	2,535	622	247	158
Crime prevention	203	136	-	-	136	34	-	34	-	34	-	-	-	-
Food	4,781	2,220	-	-	2,220	1,709	377	1,332	8	34	743	-	34	34
Other mineral resources	1,605	559	-	-	559	439	18	421	-	136	289	102	46	34
Community development	1,771	378	-	-	378	1,001	44	956	-	68	291	34	-	-
Housing	3,405	936	-	-	936	1,366	88	1,278	-	451	490	68	18	76
Does not apply	80,930	37,518	230	1,688	35,600	26,637	7,826	18,811	372	2,224	10,847	1,501	1,176	657
Not reported	13,314	1,762	34	130	1,598	1,853	561	1,292	228	230	542	185	112	8,402
Mining	7,334	1,436	46	356	1,033	2,253	530	1,723	260	744	1,766	641	60	174
Energy and fuel	3,816	784	-	101	683	1,054	356	698	42	378	1,090	384	34	70
Health	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environment	446	18	-	18	-	148	3	145	-	52	141	70	-	18
Teaching	109	-	-	-	-	-	-	-	109	-	-	-	-	-
Education, non-teach	-	-	-	-	-	-	-	-	-	-	-	-	-	-
National defense	207	64	12	34	18	109	-	109	-	-	34	-	-	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	42	-	-	-	-	-	-	-	-	-	34	-	8	-
Other mineral resources	1,933	498	34	174	289	545	102	444	109	206	370	187	18	-
Community development	71	29	-	11	18	-	-	-	-	-	42	-	-	-
Housing	60	8	-	-	8	-	-	-	-	18	34	-	-	-
Does not apply	317	18	-	18	-	270	52	218	-	11	18	-	-	-
Not reported	332	36	-	-	36	127	18	109	-	80	3	-	-	86
Nuclear	9,657	2,677	78	535	2,064	3,587	1,352	2,236	151	513	1,513	379	218	620
Energy and fuel	6,773	2,034	68	413	1,553	2,728	954	1,773	117	513	998	257	109	18
Health	126	-	-	-	-	92	34	58	-	-	-	34	-	-
Environment	86	68	-	34	34	18	-	18	-	-	-	-	-	-
Teaching	68	-	-	-	-	68	34	34	-	-	-	-	-	-
Education, non-teach	-	-	-	-	-	-	-	-	-	-	-	-	-	-
National defense	1,599	360	10	70	280	518	296	222	34	-	456	88	109	34
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mineral resources	18	18	-	-	18	-	-	-	-	-	-	-	-	-
Community development	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	324	161	-	-	161	163	34	129	-	-	-	-	-	-
Not reported	663	36	-	18	18	-	-	-	-	-	58	-	-	566
Petroleum	14,165	2,449	119	543	1,787	4,395	769	3,626	122	1,242	3,403	511	478	1,566
Energy and fuel	11,792	2,139	119	401	1,619	3,794	660	3,134	76	1,181	3,299	511	466	327
Health	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environment	179	18	-	-	18	143	-	143	-	-	18	-	-	-
Teaching	46	-	-	-	-	-	-	-	46	-	-	-	-	-
Education, non-teach	-	-	-	-	-	-	-	-	-	-	-	-	-	-
National defense	145	-	-	-	-	145	109	36	-	-	-	-	-	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mineral resources	144	102	-	34	68	-	-	-	-	8	34	-	-	-
Community development	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Housing	36	36	-	-	36	-	-	-	-	-	-	-	-	-
Does not apply	556	121	-	109	12	265	-	265	-	52	52	-	12	34
Not reported	1,267	34	-	-	34	28	-	28	-	-	-	-	-	1,205

See Footnotes at end of Table

Table B-13. Number of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Primary Work Activity: 1982—continued

Field and Area of Critical National Interest	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Reports, stat'l work,& computer appl.	Other	Not reported
		Total	Basic research	Applied research	Development and design	Total	Of research & develop.	Of other than R & D						
Other	222,939	53,611	845	5,860	46,906	59,175	17,322	41,852	4,319	13,899	38,323	12,796	23,469	16,646
Energy and fuel	36,177	7,836	81	1,555	6,200	10,855	2,492	8,364	247	2,626	6,013	1,570	6,717	311
Health	6,318	1,827	88	157	1,582	1,972	525	1,447	154	582	1,095	291	382	34
Environment	21,052	3,836	58	752	3,025	6,798	897	5,900	244	3,095	3,871	1,391	1,484	334
Teaching	3,856	102	-	102	-	498	18	480	2,778	34	104	327	12	-
Education,non-teach	1,857	213	34	36	143	1,029	328	701	52	12	102	199	22	-
National defense	38,806	13,727	314	1,913	11,499	11,334	5,620	5,714	98	1,099	7,006	2,943	1,810	591
Crime prevention	474	52	-	-	52	76	-	76	-	143	102	90	12	-
Food	4,482	1,134	12	191	931	1,560	556	1,004	109	237	974	68	312	68
Other mineral resources	1,447	378	-	34	344	310	112	198	143	34	136	36	382	18
Community development	4,739	1,171	42	42	1,086	1,912	454	1,459	10	237	793	365	217	34
Housing	5,114	711	-	34	677	1,690	361	1,329	-	753	1,071	121	739	34
Does not apply	80,032	21,284	172	1,732	19,380	19,967	5,658	14,309	295	4,407	16,545	5,172	10,861	1,549
Not reported	18,996	1,262	43	112	1,107	1,173	302	871	218	409	1,512	224	525	13,873
Life scientists	137,493	42,[illegible]41	18,969	17,739	6,111	43,889	12,303	31,896	24,122	3,972	11,209	3,382	6,880	2,938
Energy and fuel	3,899	861	300	358	203	1,582	468	1,114	-	451	455	111	218	10
Health	30,885	1[illegible],323	11,010	4,949	1,365	7,142	3,569	3,573	1,940	291	1,110	580	2,164	345
Environment	24,720	6,539	1,196	4,482	861	10,257	2,376	7,881	688	1,610	3,198	1,747	412	290
Teaching	24,127	2,531	1,800	699	31	1,436	216	1,220	19,843	12	21	9	236	239
Education,non-teach	3,333	600	406	195	-	1,715	280	1,435	601	195	21	-	31	170
National defense	946	181	80	63	38	599	77	522	-	21	111	21	12	-
Crime prevention	332	10	-	10	-	142	109	33	-	-	101	15	65	-
Food	21,028	7,719	1,457	4,782	1,480	8,021	2,091	5,930	505	462	3,297	150	663	19
Other mineral resources	577	32	-	-	32	132	21	111	21	130	131	-	130	-
Community development	613	109	-	109	-	427	236	192	-	21	94	-	162	-
Housing	502	10	10	-	-	152	-	152	-	80	152	-	-	109
Does not apply	22,279	5,701	2,701	1,929	1,071	11,448	2,577	8,870	103	509	2,329	649	1,094	366
Not reported	4,253	885	699	155	31	844	182	662	641	109	180	-	204	1,390
Biologists	86,306	23,983	11,404	9,643	2,946	28,887	7,488	21,179	16,182	3,171	6,530	2,989	2,342	1,698
Energy and fuel	2,541	719	279	238	203	1,097	336	762	-	400	204	111	-	10
Health	14,992	7,969	4,874	2,275	820	3,846	1,813	2,033	771	178	881	428	677	244
Environment	21,019	5,713	1,115	3,831	767	8,727	1,881	6,846	647	1,465	2,524	1,470	278	194
Teaching	17,298	1,868	1,489	348	31	1,137	152	986	14,033	12	-	9	109	130
Education,non-teach	2,383	539	387	152	-	1,282	150	1,133	274	109	21	-	31	127
National defense	585	101	21	63	17	352	55	297	-	21	77	21	12	-
Crime prevention	301	10	-	10	-	142	109	33	-	-	101	15	33	-
Food	6,426	2,299	728	1,164	407	2,912	712	2,200	74	95	874	43	118	10
Other mineral resources	577	32	-	-	32	132	21	111	21	130	131	-	130	-
Community development	579	109	-	109	-	319	127	192	-	21	21	-	109	-
Housing	284	10	10	-	-	152	-	152	-	80	43	-	-	-
Does not apply	15,862	4,241	2,209	1,373	659	7,967	2,002	5,965	41	550	1,580	497	803	183
Not reported	2,436	383	292	81	10	582	130	452	321	109	72	-	42	930
Biochemists	6,826	5,877	4,501	1,090	286	1,517	869	647	1,453	10	301	48	367	62
Energy and fuel	164	43	21	21	-	12	12	-	-	-	-	-	109	-
Health	5,682	4,611	3,530	838	243	862	581	281	21	-	80	31	246	31
Environment	322	10	10	-	-	234	109	126	-	-	68	10	-	-
Teaching	1,6[illegible]	238	238	-	-	-	-	-	1,401	-	-	-	-	-
Education,non-teach	48	18	18	-	-	21	-	21	9	-	-	-	-	-
National defense	67	56	56	-	-	8	-	8	-	-	-	-	-	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	577	358	284	53	21	150	140	10	-	-	68	-	-	-
Other mineral resources	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Community development	51	-	-	-	-	-	-	-	-	-	51	-	-	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	774	489	310	178	-	220	18	202	-	10	34	-	-	21
Not reported	104	52	31	-	21	9	9	-	21	-	-	-	12	10
Agricultural scientists	27,836	7,342	883	5,115	1,384	10,316	2,586	7,731	2,741	699	4,001	825	1,382	830
Energy and fuel	958	90	-	90	-	456	121	336	-	52	252	-	100	-
Health	274	212	109	57	46	31	10	21	-	-	21	-	-	9
Environment	3,334	783	71	630	82	1,296	386	910	21	144	583	267	134	96
Teaching	2,825	349	-	349	-	261	43	218	1,985	-	21	-	-	109
Education,non-teach	837	43	-	43	-	369	130	239	298	86	-	-	-	43
National defense	252	-	-	-	-	218	-	218	-	-	34	-	-	-
Crime prevention	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food	13,536	5,051	445	3,555	1,051	4,574	1,230	3,344	400	367	2,202	107	726	9
Other mineral resources	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Community development	162	-	-	-	-	109	109	-	-	-	21	-	31	-
Housing	218	-	-	-	-	-	-	-	-	-	109	-	-	109
Does not apply	4,808	622	97	339	185	2,960	557	2,403	53	40	538	152	292	152
Not reported	[illegible]35	193	141	52	-	43	-	43	86	-	109	-	101	303
Medical scientists	14,716	5,299	2,896	1,882	516	3,399	1,290	2,139	3,746	102	388	124	1,479	398
Energy and fuel	2[illegible]	10	-	10	-	17	-	17	-	-	-	-	-	-
Health	9,737	4,531	2,497	1,778	256	2,403	1,165	1,238	1,147	102	128	124	1,241	82
Environment	45	33	-	21	12	-	-	-	-	-	12	-	-	-
Teaching	2,580	77	74	3	-	38	21	17	2,324	-	-	-	127	-
Education,non-teach	64	-	-	-	-	43	-	43	21	-	-	-	-	-
National defense	43	21	-	-	21	21	21	-	-	-	-	-	-	-
Crime prevention	31	-	-	-	-	-	-	-	-	-	-	-	31	-
Food	489	10	-	10	-	398	9	377	-	-	53	-	9	-
Other mineral resources	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Community development	21	-	-	-	-	-	-	-	-	-	-	-	21	-
Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Does not apply	815	349	84	38	227	281	-	281	9	-	176	-	-	-
Not reported	876	257	236	21	-	210	43	167	213	-	-	-	50	147

See Footnotes at end of Table

Table B-13. Number of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Primary Work Activity: 1982—continued

Field and Area of Critical National Interest	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Reports, stat'l work, & computer appl.	Other	Not reported
		Total	Basic research	Applied research	Development and design	Total	Of research & develop.	Of other than R & D						
Psychologists	84,140	6,725	2,557	2,910	1,257	17,919	3,576	14,342	19,187	4,566	2,778	1,212	28,967	2,767
Energy and fuel	1,586	101	-	-	101	704	-	704	-	64	435	-	281	-
Health	27,111	1,968	585	1,138	245	4,144	1,159	2,986	2,725	2,245	503	592	14,441	492
Environment	829	181	64	117	-	455	-	455	184	-	-	-	9	-
Teaching	15,722	1,399	1,314	85	-	592	175	417	12,804	155	14	-	635	123
Education, non-teach	15,322	532	54	327	151	2,976	472	2,504	2,263	796	801	332	7,448	172
National defense	1,371	806	64	526	216	432	335	97	-	-	-	36	90	-
Crime prevention	1,531	173	-	109	64	506	109	397	127	-	11	64	640	11
Food	[illegible]	-	-	-	-	979	226	753	-	-	-	109	225	-
Other mineral resources	109	-	-	-	-	109	109	-	-	-	-	-	-	-
Community development	2,72[illegible]	300	-	127	173	1,042	90	952	223	126	-	-	987	66
Housing	[illegible]	-	-	-	-	218	-	218	64	-	117	-	-	-
Does not apply	12,807	1,082	367	408	306	5,397	878	4,509	486	1,057	730	65	3,494	326
Not reported	3,514	182	109	73	-	376	23	353	342	109	167	15	749	1,575
Social scientists	116,169	14,569	3,677	8,518	2,356	43,661	7,895	35,747	31,096	3,028	4,634	8,753	6,234	3,566
Energy and fuel	5,443	853	156	603	94	2,472	448	2,024	36	422	553	941	129	35
Health	10,411	2,032	296	1,581	155	3,498	849	2,649	1,139	346	779	883	1,865	66
Environment	3,110	969	228	531	210	1,145	367	777	148	269	58	399	15	109
Teaching	28,788	1,583	985	583	15	1,281	362	918	25,304	133	-	253	108	124
Education, non-teach	6,516	873	357	407	109	3,982	692	3,290	1,136	12	35	171	298	8
National defense	2,491	611	61	429	121	1,230	382	848	253	12	178	167	27	12
Crime prevention	2,021	426	86	317	22	894	106	788	160	56	18	241	73	152
Food	3,710	707	-	505	202	2,118	352	1,765	24	213	254	238	133	24
Other mineral resources	397	99	-	65	34	73	36	36	-	42	-	63	121	-
Community development	6,671	286	53	197	36	3,988	572	3,416	542	131	353	206	1,111	54
Housing	2,086	371	30	195	146	688	156	532	336	13	336	86	229	-
Does not apply	39,846	5,529	1,362	2,969	1,197	20,983	3,203	17,780	1,577	1,355	1,959	4,875	2,836	755
Not reported	4,654	230	60	156	15	1,309	368	941	439	24	109	226	90	2,225
Economists	46,965	6,581	1,248	4,490	844	17,119	2,928	14,191	10,447	1,844	1,978	5,595	1,696	1,707
Energy and fuel	3,531	656	36	526	94	1,335	317	1,017	36	362	224	774	109	35
Health	1,553	189	13	176	-	583	54	530	109	130	109	388	45	-
Environment	1,008	285	113	161	11	434	156	277	-	61	12	108	-	109
Teaching	10,442	618	357	246	15	253	12	241	9,430	-	-	133	-	-
Education, non-teach	1,410	286	127	160	-	736	48	689	301	12	24	51	-	-
National defense	844	255	12	192	51	436	117	320	-	-	46	107	-	-
Crime prevention	371	131	-	131	-	225	82	143	15	-	-	-	-	-
Food	2,580	571	-	478	93	1,432	322	1,110	-	179	124	238	24	12
Other mineral resources	339	79	-	45	34	73	36	36	-	42	-	35	109	-
Community development	1,468	116	15	90	12	966	167	799	12	96	12	157	109	-
Housing	1,092	219	12	61	146	205	24	182	230	13	230	86	109	-
Does not apply	20,123	3,068	539	2,154	374	9,908	1,522	8,387	260	925	1,087	3,401	1,173	302
Not reported	2,204	109	24	70	15	530	71	459	46	24	109	117	18	1,250
Sociologists / anthropologists	22,993	3,863	1,597	2,018	248	7,979	1,798	6,181	7,776	329	946	1,062	467	573
Energy and fuel	628	61	12	50	-	353	121	232	-	24	166	21	-	-
Health	2,411	1,083	193	845	46	463	102	361	517	12	-	325	11	-
Environment	754	291	105	174	12	350	145	205	-	36	12	51	15	-
Teaching	7,173	408	369	39	-	380	121	259	6,358	-	-	12	-	15
Education, non-teach	1,255	419	195	224	-	599	258	341	180	-	11	46	-	-
National defense	342	48	23	25	-	283	117	166	12	-	-	-	-	-
Crime prevention	704	273	86	174	12	271	12	260	36	15	-	109	-	-
Food	743	27	-	27	-	528	15	513	12	34	130	-	-	12
Other mineral resources	27	-	-	-	-	-	-	-	-	-	-	15	12	-
Community development	1,454	84	27	57	-	831	285	546	27	-	218	24	218	54
Housing	12	-	-	-	-	12	-	12	-	-	-	-	-	-
Does not apply	6,510	1,103	564	361	178	3,503	469	3,034	392	206	407	459	211	227
Not reported	979	66	24	42	-	407	154	253	242	-	-	-	-	265
Other social scientists	46,142	4,106	833	2,010	1,262	18,543	3,168	15,375	12,873	855	1,713	2,096	4,672	1,286
Energy and fuel	1,284	136	109	27	-	785	10	775	-	36	161	147	20	-
Health	6,447	780	91	580	109	2,452	694	1,758	514	205	670	170	1,609	66
Environment	1,347	393	11	195	187	361	66	295	148	171	34	240	-	-
Teaching	11,151	537	259	278	-	647	230	418	9,508	133	-	109	108	109
Education, non-teach	3,850	168	36	23	109	2,646	386	2,260	655	-	-	75	298	8
National defense	1,304	309	27	212	70	511	148	363	241	12	133	60	27	12
Crime prevention	946	22	-	12	10	398	12	386	109	41	18	133	73	152
Food	387	109	-	-	109	158	15	143	12	-	-	-	109	-
Other mineral resources	32	20	-	20	-	-	-	-	-	-	-	12	-	-
Community development	3,749	86	12	50	24	2,191	120	2,071	503	35	123	26	786	-
Housing	981	152	18	134	-	471	133	338	109	-	109	-	120	-
Does not apply	13,213	1,358	259	455	644	7,552	1,213	6,339	925	222	485	1,016	1,450	226
Not reported	1,470	56	12	44	-	372	143	230	151	-	-	109	72	711

NOTE: Detail may not add to total due to rounding.

Source: National Science Foundation.

Table B-14. Number of Employed Scientists and Engineers by Field, Federal Agency of Support, and Type of Employer: 1982

Field and Agency of Support	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Total, all fields	1,759,344	1,203,997	224,362	185,399	24,446	14,517	22,516	36,654	132,983	3,070	50,364	31,564	7,444	46,790
With support[1]	498,838	227,407	68,913	59,461	3,225	6,227	8,046	20,372	124,201	2,642	29,819	12,090	2,817	2,531
AID	3,039	1,197	888	888	-	-	-	415	319	11	130	-	79	-
Dept. of Agriculture	33,557	4,913	10,740	10,503	121	117	43	715	14,539	-	1,961	483	12	151
Dept. of Commerce	11,038	2,776	1,401	1,401	-	-	-	288	5,393	336	676	158	12	18
Dept. of Defense	227,383	154,025	6,500	6,345	155	-	210	6,730	56,256	1,743	456	203	659	601
Dept. of Energy	57,355	33,436	6,981	6,792	161	28	145	5,233	8,811	-	831	590	687	440
Dept. of Education	15,318	1,875	11,158	3,589	2,129	5,440	383	682	277	-	372	441	130	-
Dept. of HHS	46,831	4,891	19,479	18,520	201	758	5,569	5,476	5,437	464	3,104	1,579	446	586
Dept. of HUD	8,630	5,834	24	24	-	-	-	401	370	-	266	1,702	34	-
Dept. of Interior	18,225	3,268	2,076	2,022	-	54	64	412	9,112	34	2,744	420	34	43
Dept. of Justice	3,013	961	555	555	-	-	64	139	941	-	239	114	-	-
Dept. of Labor	4,973	1,230	300	191	109	-	9	421	1,616	-	922	474	-	-
Dept. of Transport.	40,405	16,791	632	614	18	-	21	880	4,634	-	13,568	3,487	247	143
EPA	29,369	14,823	1,471	1,471	-	-	21	1,068	4,156	34	4,780	2,845	161	9
NASA	46,625	31,807	3,559	3,450	109	-	8	1,702	9,023	68	127	68	169	94
NSF	17,911	1,557	14,586	14,185	379	21	190	1,103	210	18	70	34	-	142
Nuclear Regul.Comm.	6,939	4,099	440	440	-	-	34	858	1,190	9	72	34	126	76
Other agency	15,436	3,753	1,292	1,160	132	-	1,580	725	6,867	20	490	468	291	150
Agency unknown[2]	7,769	3,245	1,847	1,295	310	242	423	308	244	-	683	831	105	82
No Federal support	1,116,627	909,898	135,596	113,955	15,773	5,868	11,802	14,082	4,974	316	16,481	15,286	4,115	4,268
Support not known	65,079	38,135	16,172	9,190	4,888	2,094	2,194	1,325	444	-	2,856	3,251	305	398
Support not reported	78,801	28,557	3,682	2,793	560	328	665	864	2,976	112	1,206	937	207	39,593
Physical scientists	115,821	69,336	26,783	24,202	2,541	40	658	3,742	10,753	27	1,802	1,017	237	1,466
With support[1]	34,634	10,268	8,547	8,344	184	18	337	3,233	10,210	27	1,022	517	192	282
AID	58	-	-	-	-	-	-	-	58	-	-	-	-	-
Dept. of Agriculture	599	9	167	167	-	-	-	-	365	-	58	-	-	-
Dept. of Commerce	905	58	197	197	-	-	-	18	631	-	-	-	-	-
Dept. of Defense	12,611	6,231	1,292	1,292	-	-	-	945	4,100	27	-	-	17	-
Dept. of Energy	10,572	3,590	2,433	2,415	-	18	-	1,639	2,404	-	77	145	117	167
Dept. of Education	201	58	142	67	75	-	-	-	-	-	-	-	-	-
Dept. of HHS	3,326	226	1,392	1,392	-	-	152	395	907	-	12	126	-	115
Dept. of HUD	103	103	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	1,029	252	107	107	-	-	-	-	590	-	80	-	-	-
Dept. of Justice	77	-	-	-	-	-	-	-	77	-	-	-	-	-
Dept. of Labor	209	-	-	-	-	-	-	58	134	-	17	-	-	-
Dept. of Transport.	375	175	-	-	-	-	-	-	68	-	104	12	17	-
EPA	2,930	743	59	59	-	-	-	573	506	-	745	304	-	-
NASA	2,748	1,356	508	508	-	-	-	143	724	-	-	-	17	-
NSF	4,189	107	3,791	3,682	109	-	142	127	-	-	21	-	-	-
Nuclear Regul.Comm.	845	242	-	-	-	-	-	318	206	9	9	-	58	-
Other agency	1,035	43	112	112	-	-	327	24	529	-	-	-	-	-
Agency unknown[2]	213	75	70	70	-	-	-	-	9	-	-	58	-	-
No Federal support	75,229	56,805	16,422	14,458	1,956	9	306	308	389	-	584	431	45	80
Support not known	3,428	1,625	1,429	1,015	402	13	17	143	17	-	128	52	-	17
Support not reported	2,530	837	385	385	-	-	-	-	137	-	68	17	-	1,087
Chemists	78,028	53,541	14,662	12,819	1,821	22	533	1,308	4,728	27	1,356	960	84	843
With support[1]	15,722	4,632	4,012	3,828	184	-	211	1,013	4,318	27	716	495	75	224
AID	58	-	-	-	-	-	-	-	58	-	-	-	-	-
Dept. of Agriculture	426	9	58	58	-	-	-	-	301	-	58	-	-	-
Dept. of Commerce	168	-	109	109	-	-	-	18	41	-	-	-	-	-
Dept. of Defense	4,685	2,502	362	362	-	-	-	310	1,469	27	-	-	17	-
Dept. of Energy	3,743	1,536	753	753	-	-	-	473	677	-	-	135	58	109
Dept. of Education	142	-	142	67	75	-	-	-	-	-	-	-	-	-
Dept. of HHS	2,656	168	1,030	1,030	-	-	152	145	907	-	12	126	-	115
Dept. of HUD	58	58	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	429	234	58	58	-	-	-	-	136	-	-	-	-	-
Dept. of Justice	77	-	-	-	-	-	-	-	77	-	-	-	-	-
Dept. of Labor	150	-	-	-	-	-	-	58	75	-	17	-	-	-
Dept. of Transport.	212	33	-	-	-	-	-	-	58	-	104	-	17	-
EPA	2,071	623	26	26	-	-	-	405	207	-	516	293	-	-
NASA	608	540	-	-	-	-	-	34	18	-	-	-	17	-
NSF	2,032	-	1,871	1,762	109	-	142	18	-	-	-	-	-	-
Nuclear Regul.Comm.	163	58	-	-	-	-	-	51	36	9	9	-	-	-
Other agency	722	9	33	33	-	-	201	24	454	-	-	-	-	-
Agency unknown[2]	213	75	70	70	-	-	-	-	9	-	-	58	-	-
No Federal support	58,586	46,948	9,900	8,404	1,488	9	306	175	308	-	478	366	9	80
Support not known	2,285	1,386	582	419	150	13	17	118	17	-	97	52	-	17
Support not reported	1,435	576	168	168	-	-	-	-	84	-	68	17	-	523
Physicists / astronomers	25,802	9,808	10,248	9,617	612	18	126	1,574	3,386	-	68	10	36	546
With support[1]	12,849	3,895	3,824	3,806	-	18	126	1,526	3,351	-	58	10	-	58
AID	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Commerce	255	-	70	70	-	-	-	-	185	-	-	-	-	-
Dept. of Defense	5,605	2,535	741	741	-	-	-	418	1,911	-	-	-	-	-
Dept. of Energy	5,064	1,516	1,495	1,477	-	18	-	907	1,019	-	58	10	-	58
Dept. of Education	58	58	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HHS	520	-	352	352	-	-	-	167	-	-	-	-	-	-
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Justice	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	58	-	-	-	-	-	-		58	-	-	-	-	-
Dept. of Transport.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPA	177	58	-	-	-	-	-	109	-	-	-	10	-	-
NASA	1,488	555	368	368	-	-	-	-	564	-	-	-	-	-
NSF	1,938	24	1,805	1,805	-	-	-	109	-	-	-	-	-	-
Nuclear Regul.Comm.	234	58	-	-	-	-	-	117	58	-	-	-	-	-
Other agency	286	34	68	68	-	-	126	-	58	-	-	-	-	-
Agency unknown[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Federal support	11,221	5,515	5,611	5,142	469	-	-	24	34	-	-	-	36	-
Support not known	792	163	594	452	143	-	-	24	-	-	10	-	-	-
Support not reported	940	235	218	218	-	-	-	-	-	-	-	-	-	487

See Footnotes at end of Table

Table B-14. Number of Employed Scientists and Engineers by Field, Federal Agency of Support, and Type of Employer: 1982—continued

Field and Agency of Support	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Other physical scientists	11,991	5,986	1,874	1,765	109	-	-	862	2,642	-	377	57	117	77
With support[1]	6,063	1,741	710	710	-	-	-	695	2,541	-	247	12	117	-
AID	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	173	-	109	109	-	-	-	-	64	-	-	-	-	-
Dept. of Commerce	482	58	18	18	-	-	-	-	405	-	-	-	-	-
Dept. of Defense	2,321	1,194	189	189	-	-	-	218	720	-	-	-	-	-
Dept. of Energy	1,766	536	186	186	-	-	-	260	708	-	18	-	58	-
Dept. of Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HHS	151	58	10	10	-	-	-	83	-	-	-	-	-	-
Dept. of HUD	44	44	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	600	18	46	46	-	-	-	-	453	-	80	-	-	-
Dept. of Justice	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Transport.	164	142	-	-	-	-	-	-	9	-	-	12	-	-
EPA	682	61	33	33	-	-	-	56	299	-	229	-	-	-
NASA	652	261	140	140	-	-	-	109	143	-	-	-	-	-
NSF	219	83	115	115	-	-	-	-	-	-	21	-	-	-
Nuclear Regul.Comm.	448	125	-	-	-	-	-	151	114	-	-	-	58	-
Other agency	27	-	11	11	-	-	-	-	17	-	-	-	-	-
Agency unknown[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Federal support	5,422	4,142	911	911	-	-	-	167	49	-	108	45	-	-
Support not known	351	77	252	144	109	-	-	-	-	-	22	-	-	-
Support not reported	156	26	-	-	-	-	-	-	52	-	-	-	-	77
Mathematical scientists	43,944	17,400	20,091	16,636	3,355	101	202	698	4,095	27	491	155	99	686
With support[1]	11,934	4,024	2,950	2,513	357	80	65	537	3,804	27	268	64	47	146
AID	18	-	18	18	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	568	218	45	45	-	-	-	-	288	-	18	-	-	-
Dept. of Commerce	494	54	9	9	-	-	-	-	413	-	-	-	-	18
Dept. of Defense	6,286	3,452	468	468	-	-	-	270	1,970	9	-	-	18	99
Dept. of Energy	748	531	54	54	-	-	-	57	94	-	-	-	12	-
Dept. of Education	746	28	699	334	285	80	-	-	18	-	-	-	-	-
Dept. of HHS	1,355	163	400	400	-	-	65	175	424	18	110	-	-	-
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	53	36	-	-	-	-	-	18	-	-	-	-	-	-
Dept. of Justice	36	-	-	-	-	-	-	-	18	-	-	18	-	-
Dept. of Labor	243	-	-	-	-	-	-	-	140	-	103	-	-	-
Dept. of Transport.	369	145	36	36	-	-	-	-	106	-	18	46	18	-
EPA	286	54	109	109	-	-	-	54	50	-	18	-	-	-
NASA	918	578	-	-	-	-	-	36	304	-	-	-	-	-
NSF	1,104	109	929	911	18	-	18	18	-	-	-	-	-	29
Nuclear Regul.Comm.	204	174	-	-	-	-	-	18	13	-	-	-	-	-
Other agency	337	-	127	127	-	-	-	18	147	-	46	-	-	-
Agency unknown[2]	199	18	181	145	36	-	-	-	-	-	-	-	-	-
No Federal support	28,915	12,813	15,246	12,818	2,405	21	137	143	212	-	205	91	52	18
Support not known	2,018	356	1,629	1,055	574	-	-	-	33	-	-	-	-	-
Support not reported	1,077	207	266	249	18	-	-	18	46	-	18	-	-	522
Mathematicians	36,945	14,910	17,740	14,323	3,337	80	117	508	2,814	-	91	92	44	629
With support[1]	9,067	3,654	2,062	1,625	357	80	-	424	2,625	-	91	46	18	146
AID	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	344	218	-	-	-	-	-	-	127	-	-	-	-	-
Dept. of Commerce	166	-	9	9	-	-	-	-	139	-	-	-	-	18
Dept. of Defense	5,843	3,282	324	324	-	-	-	270	1,850	-	-	-	18	90
Dept. of Energy	479	367	36	36	-	-	-	9	67	-	-	-	-	-
Dept. of Education	583	28	555	190	285	80	-	-	-	-	-	-	-	-
Dept. of HHS	337	109	9	9	-	-	-	109	92	-	18	-	-	-
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	18	-	-	-	-	-	-	18	-	-	-	-	-	-
Dept. of Justice	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	107	-	-	-	-	-	-	-	54	-	53	-	-	-
Dept. of Transport.	235	145	18	18	-	-	-	-	26	-	-	46	-	-
EPA	127	-	109	109	-	-	-	-	18	-	-	-	-	-
NASA	882	560	-	-	-	-	-	18	304	-	-	-	-	-
NSF	1,032	109	894	876	18	-	-	-	-	-	-	-	-	29
Nuclear Regul.Comm.	159	146	-	-	-	-	-	-	13	-	-	-	-	-
Other agency	112	-	18	18	-	-	-	-	63	-	32	-	-	-
Agency unknown[2]	199	18	181	145	36	-	-	-	-	-	-	-	-	-
No Federal support	25,273	10,815	14,056	11,669	2,387	-	117	66	147	-	-	46	27	-
Support not known	1,689	302	1,372	798	574	-	-	-	15	-	-	-	-	-
Support not reported	916	138	249	231	18	-	-	18	26	-	-	-	-	482
Statisticians	6,999	2,490	2,351	2,312	18	21	85	190	1,281	27	400	63	55	57
With support[1]	2,867	370	888	888	-	-	65	113	1,179	27	177	18	29	-
AID	18	-	18	18	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	224	-	45	45	-	-	-	-	161	-	18	-	-	-
Dept. of Commerce	328	54	-	-	-	-	-	-	274	-	-	-	-	-
Dept. of Defense	443	170	144	144	-	-	-	-	120	9	-	-	-	-
Dept. of Energy	269	164	18	18	-	-	-	46	27	-	-	-	12	-
Dept. of Education	163	-	145	145	-	-	-	-	18	-	-	-	-	-
Dept. of HHS	1,018	54	391	391	-	-	65	66	332	18	92	-	-	-
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	36	36	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Justice	36	-	-	-	-	-	-	-	18	-	-	18	-	-
Dept. of Labor	136	-	-	-	-	-	-	-	86	-	49	-	-	-
Dept. of Transport.	134	-	18	18	-	-	-	-	80	-	18	-	18	-
EPA	159	54	-	-	-	-	-	54	33	-	18	-	-	-
NASA	36	18	-	-	-	-	-	18	-	-	-	-	-	-
NSF	72	-	36	36	-	-	18	18	-	-	-	-	-	-
Nuclear Regul.Comm.	45	27	-	-	-	-	-	18	-	-	-	-	-	-
Other agency	225	-	109	109	-	-	-	18	84	-	14	-	-	-
Agency unknown[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Federal support	3,642	1,997	1,189	1,150	18	21	20	77	65	-	205	45	25	18
Support not known	329	54	257	257	-	-	-	-	18	-	-	-	-	-
Support not reported	161	69	18	18	-	-	-	-	18	-	18	-	-	39

See Footnotes at end of Table

Table B-14. Number of Employed Scientists and Engineers by Field, Federal Agency of Support, and Type of Employer: 1982—continued

Field and Agency of Support	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Computer specialists	**168,768**	**133,047**	**9,558**	**7,064**	**1,779**	**736**	**1,990**	**3,159**	**11,653**	**283**	**4,147**	**2,058**	**615**	**1,998**
With support[1]	31,700	15,671	1,127	964	18	145	157	1,201	10,602	174	1,882	573	148	185
AID	145	36	-	-	-	-	-	109	-	-	-	-	-	-
Dept. of Agriculture	851	230	36	36	-	-	-	-	473	-	56	56	-	-
Dept. of Commerce	1,332	464	-	-	-	-	-	18	805	9	-	36	-	-
Dept. of Defense	17,625	11,616	158	158	-	-	-	576	4,765	165	90	-	129	109
Dept. of Energy	2,558	1,134	122	122	-	-	-	473	640	-	36	117	-	36
Dept. of Education	673	261	175	66	-	109	-	145	-	-	92	-	-	-
Dept. of HHS	2,303	379	220	184	-	36	146	54	841	-	480	184	-	10
Dept. of HUD	396	133	-	-	-	-	-	109	23	-	76	56	-	-
Dept. of Interior	688	324	-	-	-	-	-	-	364	-	-	-	-	-
Dept. of Justice	312	72	-	-	-	-	-	-	184	-	56	-	-	-
Dept. of Labor	843	192	-	-	-	-	-	119	79	-	453	-	-	-
Dept. of Transport.	1,807	626	-	-	-	-	-	220	452	-	507	-	-	-
EPA	450	155	20	20	-	-	-	-	202	-	72	-	-	-
NASA	3,481	2,637	148	148	-	-	-	116	579	-	-	-	-	-
NSF	587	46	378	378	-	-	-	163	-	-	-	-	-	-
Nuclear Regul.Comm.	567	354	-	-	-	-	-	40	173	-	-	-	-	-
Other agency	1,840	359	-	-	-	-	10	109	1,323	-	20	20	-	-
Agency unknown[2]	902	371	137	119	18	-	-	20	29	-	145	181	20	-
No Federal support	124,619	110,245	6,826	5,049	1,361	416	1,484	1,696	590	109	1,676	1,168	437	408
Support not known	8,562	5,643	1,539	874	390	175	240	262	20	-	535	283	20	-
Support not reported	3,887	1,488	66	66	-	-	109	-	441	-	54	34	10	1,405
Environmental scientists	**42,407**	**26,642**	**5,329**	**4,713**	**615**	-	-	**375**	**7,338**	**182**	**1,962**	**181**	**108**	**519**
With support[1]	12,176	1,881	2,028	2,010	18	-	-	230	6,943	152	919	92	54	77
AID	54	18	18	18	-	-	-	-	18	-	-	-	-	-
Dept. of Agriculture	841	165	72	72	-	-	-	-	585	-	18	-	-	-
Dept. of Commerce	2,429	164	378	378	-	-	-	11	1,759	100	18	-	-	-
Dept. of Defense	2,350	402	302	302	-	-	-	42	1,550	18	-	-	36	-
Dept. of Energy	1,999	600	738	738	-	-	-	73	377	-	141	34	18	18
Dept. of Education	54	-	36	36	-	-	-	-	-	-	18	-	-	-
Dept. of HHS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HUD	11	11	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	3,053	220	373	373	-	-	-	11	2,174	-	275	-	-	-
Dept. of Justice	56	36	-	-	-	-	-	-	-	-	-	21	-	-
Dept. of Labor	29	11	-	-	-	-	-	-	18	-	-	-	-	-
Dept. of Transport.	255	107	-	-	-	-	-	11	36	-	101	-	-	-
EPA	906	285	65	65	-	-	-	17	186	-	320	36	-	-
NASA	1,159	129	472	472	-	-	-	11	495	34	18	-	-	-
NSF	1,483	21	1,185	1,167	18	-	-	106	77	18	18	-	-	58
Nuclear Regul.Comm.	529	153	145	145	-	-	-	11	187	-	18	34	-	-
Other agency	218	54	18	18	-	-	-	-	145	-	-	-	-	-
Agency unknown[2]	143	34	-	-	-	-	-	-	-	-	109	-	-	-
No Federal support	28,426	24,053	2,835	2,407	367	-	-	127	193	-	973	71	54	119
Support not known	653	332	212	91	121	-	-	-	21	-	70	18	-	-
Support not reported	1,152	376	254	145	109	-	-	18	181	-	-	-	-	323
Earth scientists	**35,850**	**24,861**	**3,937**	**3,349**	**588**	-	-	**121**	**4,451**	-	**1,853**	**111**	**73**	**442**
With support[1]	7,160	1,063	1,004	986	18	-	-	86	4,140	-	810	21	18	18
AID	18	-	-	-	-	-	-	-	18	-	-	-	-	-
Dept. of Agriculture	687	48	54	54	-	-	-	-	567	-	18	-	-	-
Dept. of Commerce	170	11	-	-	-	-	-	-	159	-	-	-	-	-
Dept. of Defense	1,166	175	91	91	-	-	-	32	868	-	-	-	-	-
Dept. of Energy	1,404	424	435	435	-	-	-	47	322	-	141	-	18	18
Dept. of Education	54	-	36	36	-	-	-	-	-	-	18	-	-	-
Dept. of HHS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HUD	11	11	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	2,767	220	156	156	-	-	-	-	2,135	-	256	-	-	-
Dept. of Justice	56	36	-	-	-	-	-	-	-	-	-	21	-	-
Dept. of Labor	29	11	-	-	-	-	-	-	18	-	-	-	-	-
Dept. of Transport.	182	70	-	-	-	-	-	11	-	-	101	-	-	-
EPA	618	176	47	47	-	-	-	17	131	-	248	-	-	-
NASA	231	-	117	117	-	-	-	11	103	-	-	-	-	-
NSF	649	21	609	591	18	-	-	-	-	-	18	-	-	-
Nuclear Regul.Comm.	349	36	145	145	-	-	-	-	149	-	18	-	-	-
Other agency	181	54	-	-	-	-	-	-	127	-	-	-	-	-
Agency unknown[2]	143	34	-	-	-	-	-	-	-	-	109	-	-	-
No Federal support	27,077	23,101	2,595	2,254	340	-	-	18	145	-	973	71	54	119
Support not known	643	321	212	91	121	-	-	-	21	-	70	18	-	-
Support not reported	971	376	127	18	109	-	-	18	145	-	-	-	-	305
Oceanographers	**1,649**	**353**	**528**	**519**	**9**	-	-	**45**	**671**	**36**	-	-	-	**18**
With support[1]	1,434	274	428	428	-	-	-	45	653	36	-	-	-	-
AID	36	18	18	18	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	117	117	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Commerce	572	136	217	217	-	-	-	11	173	36	-	-	-	-
Dept. of Defense	653	139	45	45	-	-	-	10	459	-	-	-	-	-
Dept. of Energy	315	34	281	281	-	-	-	-	-	-	-	-	-	-
Dept. of Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HHS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	109	-	109	109	-	-	-	11	39	-	-	-	-	-
Dept. of Justice	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Transport.	18	-	-	-	-	-	-	-	18	-	-	-	-	-
EPA	18	-	18	18	-	-	-	-	-	-	-	-	-	-
NASA	143	34	109	109	-	-	-	-	-	-	-	-	-	-
NSF	379	-	327	327	-	-	-	35	18	-	-	-	-	-
Nuclear Regul.Comm.	117	117	-	-	-	-	-	-	-	-	-	-	-	-
Other agency	18	-	18	18	-	-	-	-	-	-	-	-	-	-
Agency unknown[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Federal support	161	79	82	73	9	-	-	-	-	-	-	-	-	-
Support not known	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support not reported	54	-	18	18	-	-	-	-	18	-	-	-	-	18

See Footnotes at end of Table

Table B-14. Number of Employed Scientists and Engineers by Field, Federal Agency of Support, and Type of Employer: 1982—continued

Field and Agency of Support	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Atmospheric scientists	4,897	1,228	865	847	18	-	-	200	2,216	115	109	70	36	58
With support[1]	3,582	344	598	598	-	-	-	100	2,150	115	109	70	36	58
AID	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	36	-	18	18	-	-	-	-	18	-	-	-	-	-
Dept. of Commerce	1,627	18	100	100	-	-	-	-	1,427	63	18	-	-	-
Dept. of Defense	531	88	167	167	-	-	-	-	222	18	-	-	36	-
Dept. of Energy	279	143	21	21	-	-	-	28	54	-	-	34	-	-
Dept. of Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HHS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	127	-	109	109	-	-	-	-	-	-	18	-	-	-
Dept. of Justice	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Transport.	54	36	-	-	-	-	-	-	18	-	-	-	-	-
EPA	272	109	-	-	-	-	-	-	54	-	73	36	-	-
NASA	786	95	246	246	-	-	-	-	392	34	18	-	-	-
NSF	455	-	249	249	-	-	-	71	58	18	-	-	-	58
Nuclear Regul.Comm.	63	-	-	-	-	-	-	11	18	-	-	34	-	-
Other agency	18	-	-	-	-	-	-	-	18	-	-	-	-	-
Agency unknown[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Federal support	1,186	873	158	140	18	-	-	100	46	-	-	-	-	-
Support not known	11	11	-	-	-	-	-	-	-	-	-	-	-	-
Support not reported	127	-	109	109	-	-	-	-	18	-	-	-	-	-
Engineers	1,050,872	843,962	32,148	27,406	4,070	672	2,056	12,236	70,769	1,910	25,902	21,024	4,056	36,827
With support[1]	301,459	185,880	12,334	11,003	1,212	119	556	8,064	66,225	1,601	17,106	7,368	1,694	794
AID	1,198	1,131	-	-	-	-	-	-	34	-	-	-	34	-
Dept. of Agriculture	7,400	3,242	694	682	12	-	-	252	2,906	-	120	186	-	-
Dept. of Commerce	3,579	1,870	446	446	-	-	-	187	686	218	86	86	-	-
Dept. of Defense	180,242	129,001	3,310	3,167	143	-	-	4,479	40,965	1,195	271	203	426	371
Dept. of Energy	38,039	26,475	2,634	2,572	52	10	145	2,754	4,536	-	424	178	706	186
Dept. of Education	3,215	906	1,918	1,072	737	109	68	-	170	-	18	135	-	-
Dept. of HHS	4,616	1,990	1,030	988	42	-	342	241	435	154	195	52	143	34
Dept. of HUD	7,108	5,329	-	-	-	-	-	36	213	-	58	1,436	34	-
Dept. of Interior	5,610	1,877	253	253	-	-	-	262	2,434	34	405	312	34	-
Dept. of Justice	676	396	109	109	-	-	-	-	172	-	-	-	-	-
Dept. of Labor	748	276	-	-	-	-	-	-	341	-	94	34	-	-
Dept. of Transport.	35,352	14,641	442	424	18	-	-	720	3,542	-	12,567	3,185	213	34
EPA	20,580	12,592	377	377	-	-	-	299	1,906	34	3,069	2,142	161	-
NASA	37,174	26,694	2,142	2,033	109	-	8	1,265	6,717	34	-	68	152	94
NSF	3,889	1,031	2,460	2,452	8	-	-	330	34	-	-	34	-	-
Nuclear Regul.Comm.	4,603	3,176	177	177	-	-	34	456	584	-	34	-	68	76
Other agency	6,304	2,818	245	245	-	-	68	102	2,483	-	188	291	110	-
Agency unknown[2]	3,528	2,529	199	62	137	-	34	68	183	-	133	365	-	18
No Federal support	652,945	606,187	16,749	14,561	1,810	379	1,145	3,813	2,830	197	6,944	10,557	1,996	2,527
Support not known	35,346	28,536	2,271	1,160	970	140	287	120	316	-	1,162	2,253	281	136
Support not reported	61,130	23,536	794	682	78	34	68	239	1,399	112	690	846	86	33,370
Aeronautical / Astronautical	46,007	34,919	1,706	1,672	34	-	-	569	7,182	34	34	211	102	1,281
With support[1]	31,179	22,470	934	934	-	-	-	535	6,981	34	-	102	68	76
AID	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	177	68	109	109	-	-	-	-	-	-	-	-	-	-
Dept. of Commerce	10	10	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Defense	22,698	18,306	310	310	-	-	-	337	3,575	34	-	34	68	34
Dept. of Energy	1,188	765	153	153	-	-	-	52	218	-	-	-	-	-
Dept. of Education	34	34	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HHS	34	-	34	34	-	-	-	-	-	-	-	-	-	-
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	34	34	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Justice	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	34	-	-	-	-	-	-	-	34	-	-	-	-	-
Dept. of Transport.	666	114	-	-	-	-	-	34	485	-	-	34	-	-
EPA	18	18	-	-	-	-	-	-	-	-	-	-	-	-
NASA	10,284	6,666	519	519	-	-	-	196	2,758	34	-	68	-	42
NSF	68	68	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear Regul.Comm.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other agency	272	238	-	-	-	-	-	-	34	-	-	-	-	-
Agency unknown[2]	180	180	-	-	-	-	-	-	-	-	-	-	-	-
No Federal support	11,304	10,482	611	611	-	-	-	-	34	-	34	109	34	-
Support not known	1,061	934	127	127	-	-	-	-	-	-	-	-	-	-
Support not reported	2,463	1,034	34	-	34	-	-	34	157	-	-	-	-	1,205
Chemical	61,277	54,945	1,905	1,671	234	-	-	905	1,465	52	295	195	86	1,430
With support[1]	6,775	3,783	682	682	-	-	-	515	1,415	52	253	-	34	42
AID	143	109	-	-	-	-	-	-	-	-	-	-	34	-
Dept. of Agriculture	143	109	34	34	-	-	-	-	-	-	-	-	-	-
Dept. of Commerce	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Defense	2,394	1,215	92	92	-	-	-	211	825	52	-	-	-	-
Dept. of Energy	3,617	2,458	412	412	-	-	-	364	240	-	109	-	-	34
Dept. of Education	260	8	218	218	-	-	-	-	34	-	-	-	-	-
Dept. of HHS	34	-	-	-	-	-	-	-	34	-	-	-	-	-
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	313	151	-	-	-	-	-	-	128	-	34	-	-	-
Dept. of Justice	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Transport.	127	109	18	18	-	-	-	-	-	-	-	-	-	-
EPA	604	214	-	-	-	-	-	76	203	-	110	-	-	-
NASA	448	312	109	109	-	-	-	27	-	-	-	-	-	-
NSF	244	143	102	102	-	-	-	-	-	-	-	-	-	-
Nuclear Regul.Comm.	427	218	-	-	-	-	-	201	-	-	-	-	-	8
Other agency	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Agency unknown[2]	52	34	-	-	-	-	-	-	18	-	-	-	-	-
No Federal support	51,026	49,193	1,114	880	234	-	-	390	42	-	42	68	34	143
Support not known	1,193	1,157	-	-	-	-	-	-	-	-	-	18	18	-
Support not reported	2,283	812	109	109	-	-	-	-	8	-	-	109	-	1,245

See Footnotes at end of Table

Table B-14. **Number of Employed Scientists and Engineers by Field, Federal Agency of Support, and Type of Employer: 1982**—continued

Field and Agency of Support	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Civil	**145,955**	**90,453**	**3,792**	**3,397**	**265**	**129**	**102**	**841**	**13,268**	**353**	**17,763**	**13,501**	**768**	**5,112**
With support[1]	52,575	20,742	916	844	62	10	-	478	12,482	319	12,300	4,875	364	98
AID	263	229	-	-	-	-	-	-	34	-	-	-	-	-
Dept. of Agriculture	3,053	1,150	34	34	-	-	-	-	1,632	-	68	170	-	-
Dept. of Commerce	636	252	-	-	-	-	-	-	47	218	68	52	-	-
Dept. of Defense	12,594	5,978	171	171	-	-	-	76	6,200	68	68	34	-	-
Dept. of Energy	2,791	1,960	44	34	-	10	-	153	489	-	34	-	34	68
Dept. of Education	398	52	143	109	34	-	-	-	68	-	-	135	-	-
Dept. of HHS	1,103	822	-	-	-	-	-	-	52	34	34	52	109	-
Dept. of HUD	4,414	3,051	-	-	-	-	-	18	135	-	40	1,170	-	-
Dept. of Interior	2,274	581	151	151	-	-	-	-	1,287	-	154	102	-	-
Dept. of Justice	171	62	109	109	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	136	34	-	-	-	-	-	-	34	-	34	34	-	-
Dept. of Transport.	23,896	8,179	247	229	18	-	-	223	1,411	-	11,031	2,626	179	-
EPA	8,224	5,968	34	34	-	-	-	-	349	-	749	997	127	-
NASA	709	599	-	-	-	-	-	-	110	-	-	-	-	-
NSF	581	120	427	427	-	-	-	-	-	-	-	34	-	-
Nuclear Regul.Comm.	410	180	109	109	-	-	-	58	28	-	-	-	-	34
Other agency	1,525	445	-	-	-	-	-	-	723	-	102	213	42	-
Agency unknown[2]	920	519	19	8	10	-	-	-	42	-	94	227	-	18
No Federal support	79,597	63,996	2,538	2,343	86	109	102	296	564	34	4,259	7,051	318	438
Support not known	5,869	3,476	229	102	117	10	-	34	76	-	809	1,178	68	-
Support not reported	7,914	2,239	109	109	-	-	-	34	146	-	395	396	18	4,577
Electrical / Electronic	**245,781**	**200,358**	**7,511**	**6,492**	**975**	**44**	**273**	**4,018**	**20,990**	**502**	**1,000**	**1,821**	**814**	**8,493**
With support[1]	77,362	50,991	2,577	2,373	204	-	117	2,720	19,234	482	334	326	313	268
AID	170	170	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	891	628	-	-	-	-	-	143	120	-	-	-	-	-
Dept. of Commerce	1,237	569	109	109	-	-	-	109	451	-	-	-	-	-
Dept. of Defense	60,416	42,748	1,040	1,007	34	-	-	1,880	13,872	482	-	68	177	148
Dept. of Energy	7,008	4,417	264	246	18	-	-	576	1,436	-	44	102	136	34
Dept. of Education	306	128	144	8	136	-	-	-	34	-	-	-	-	-
Dept. of HHS	1,129	215	432	424	8	-	109	195	110	-	-	-	34	34
Dept. of HUD	538	452	-	-	-	-	-	18	34	-	-	34	-	-
Dept. of Interior	441	226	-	-	-	-	-	119	96	-	-	-	-	-
Dept. of Justice	289	188	-	-	-	-	-	-	102	-	-	-	-	-
Dept. of Labor	172	136	-	-	-	-	-	-	37	-	-	-	-	-
Dept. of Transport.	3,523	1,941	109	109	-	-	-	177	989	-	203	104	-	-
EPA	1,064	588	68	68	-	-	-	143	136	-	18	112	-	-
NASA	9,942	6,107	898	898	-	-	8	720	2,122	-	-	-	34	52
NSF	1,122	244	649	641	8	-	-	229	-	-	-	-	-	-
Nuclear Regul.Comm.	634	446	-	-	-	-	-	-	120	-	34	-	34	-
Other agency	1,455	639	-	-	-	-	-	68	646	-	68	34	-	-
Agency unknown[2]	911	772	20	20	-	-	-	34	78	-	-	8	-	-
No Federal support	145,523	136,572	3,970	3,425	545	-	122	1,212	1,118	10	638	1,045	431	404
Support not known	7,851	6,723	695	425	226	44	34	52	71	-	18	188	70	-
Support not reported	15,046	6,072	269	269	-	-	-	34	567	10	10	262	-	7,821
Industrial	**67,937**	**60,654**	**1,171**	**1,026**	**145**	-	**435**	**397**	**2,437**	**52**	**162**	**504**	**71**	**2,050**
With support[1]	11,071	8,047	399	273	127	-	153	68	2,215	42	76	34	3	34
AID	42	42	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	34	-	-	-	-	-	-	-	34	-	-	-	-	-
Dept. of Commerce	127	127	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Defense	8,979	6,721	285	177	109	-	-	34	1,860	42	-	34	3	-
Dept. of Energy	827	572	44	44	-	-	109	34	68	-	-	-	-	-
Dept. of Education	34	-	34	34	-	-	-	-	-	-	-	-	-	-
Dept. of HHS	333	86	18	18	-	-	153	-	-	-	76	-	-	-
Dept. of HUD	78	78	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	21	-	-	-	-	-	-	-	21	-	-	-	-	-
Dept. of Justice	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Transport.	433	399	-	-	-	-	-	-	34	-	-	-	-	-
EPA	143	143	-	-	-	-	-	-	-	-	-	-	-	-
NASA	1,381	1,381	-	-	-	-	-	-	-	-	-	-	-	-
NSF	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear Regul.Comm.	244	210	-	-	-	-	-	-	-	-	-	-	-	34
Other agency	110	42	-	-	-	-	-	-	68	-	-	-	-	-
Agency unknown[2]	83	55	18	-	18	-	-	-	10	-	-	-	-	-
No Federal support	50,035	48,039	758	750	8	-	206	319	112	10	52	328	34	173
Support not known	2,891	2,636	3	3	-	-	8	-	34	-	34	143	34	-
Support not reported	3,939	1,932	10	-	10	-	68	10	76	-	-	-	-	1,843
Materials	**22,885**	**19,181**	**1,670**	**1,652**	**18**	-	-	**214**	**1,220**	-	**71**	**34**	**127**	**368**
With support[1]	6,816	4,129	1,161	1,161	-	-	-	94	1,200	-	37	34	127	34
AID	18	18	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Commerce	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Defense	4,454	3,178	480	480	-	-	-	42	719	-	-	-	-	34
Dept. of Energy	1,852	873	464	464	-	-	-	60	312	-	34	-	109	-
Dept. of Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HHS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	120	52	-	-	-	-	-	-	68	-	-	-	-	-
Dept. of Justice	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Transport.	60	52	-	-	-	-	-	8	-	-	-	-	-	-
EPA	68	68	-	-	-	-	-	-	-	-	-	-	-	-
NASA	1,180	1,045	34	34	-	-	-	8	93	-	-	-	-	-
NSF	537	-	503	503	-	-	-	34	-	-	-	-	-	-
Nuclear Regul.Comm.	136	68	-	-	-	-	-	-	68	-	-	-	-	-
Other agency	243	34	142	142	-	-	-	-	67	-	-	-	-	-
Agency unknown[2]	63	27	-	-	-	-	-	-	-	-	3	34	-	-
No Federal support	14,474	14,025	382	382	-	-	-	68	-	-	-	-	-	-
Support not known	674	580	18	-	18	-	-	34	-	-	34	-	-	8
Support not reported	921	447	109	109	-	-	-	18	20	-	-	-	-	326

See Footnotes at end of Table

Table B-14. Number of Employed Scientists and Engineers by Field, Federal Agency of Support, and Type of Employer: 1982—continued

Field and Agency of Support	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Mechanical	206,943	179,611	7,136	5,210	1,671	255	409	1,906	9,587	170	653	1,152	424	5,895
With support[1]	44,336	30,777	2,354	1,708	537	109	86	1,379	8,854	68	197	348	144	130
AID	177	177	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	457	244	-	-	-	-	-	109	86	-	18	-	-	-
Dept. of Commerce	527	380	34	34	-	-	-	34	61	-	18	-	-	-
Dept. of Defense	29,194	21,283	534	534	-	-	-	666	6,424	68	52	34	34	78
Dept. of Energy	9,054	6,756	502	468	34	-	18	954	559	-	111	34	68	52
Dept. of Education	1,275	315	908	405	394	109	-	-	34	-	18	-	-	-
Dept. of HHS	966	448	352	318	34	-	-	12	136	-	18	-	-	-
Dept. of HUD	520	492	-	-	-	-	-	-	-	-	-	28	-	-
Dept. of Interior	518	170	-	-	-	-	-	109	188	-	52	-	-	-
Dept. of Justice	34	34	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	18	-	-	-	-	-	-	-	-	-	18	-	-	-
Dept. of Transport.	1,981	1,640	68	68	-	-	-	12	151	-	-	110	-	-
EPA	1,328	988	34	34	-	-	-	12	122	-	34	136	-	-
NASA	7,134	5,587	387	278	109	-	-	189	929	-	-	-	42	-
NSF	624	132	492	492	-	-	-	-	-	-	-	-	-	-
Nuclear Regul.Comm.	988	868	-	-	-	-	-	86	34	-	-	-	-	-
Other agency	833	455	8	8	-	-	34	34	302	-	-	-	-	-
Agency unknown[2]	415	313	34	34	-	-	34	-	34	-	-	-	-	-
No Federal support	144,550	137,760	4,208	3,214	882	112	256	527	354	-	370	352	218	505
Support not known	7,716	6,445	506	221	252	34	68	-	102	-	52	419	62	62
Support not reported	10,341	4,629	68	68	-	-	-	-	276	102	34	34	-	5,198
Mining	7,334	6,249	311	303	8	-	-	109	307	-	158	52	34	114
With support[1]	833	321	52	52	-	-	-	-	307	-	86	34	34	-
AID	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	34	-	-	-	-	-	-	-	34	-	-	-	-	-
Dept. of Commerce	34	-	-	-	-	-	-	-	-	-	-	34	-	-
Dept. of Defense	142	68	34	34	-	-	-	-	41	-	-	-	-	-
Dept. of Energy	123	123	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Education	3	3	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HHS	34	34	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HUD	86	52	-	-	-	-	-	-	-	-	-	-	34	-
Dept. of Interior	219	63	-	-	-	-	-	-	122	-	-	-	34	-
Dept. of Justice	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	76	-	-	-	-	-	-	-	76	-	-	-	-	-
Dept. of Transport.	86	99	-	-	-	-	-	-	-	-	86	-	-	-
EPA	52	18	-	-	-	-	-	-	-	-	-	-	34	-
NASA	34	34	-	-	-	-	-	-	-	-	-	-	-	-
NSF	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear Regul.Comm.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other agency	52	-	18	18	-	-	-	-	34	-	-	-	-	-
Agency unknown[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Federal support	6,124	5,637	260	252	8	-	-	109	-	-	54	18	-	46
Support not known	146	128	-	-	-	-	-	-	-	-	18	-	-	-
Support not reported	231	163	-	-	-	-	-	-	-	-	-	-	-	68
Nuclear	9,657	6,771	203	203	-	-	34	207	1,726	-	18	109	177	414
With support[1]	4,614	2,440	170	170	-	-	34	130	1,590	-	-	109	143	-
AID	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Commerce	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Defense	1,569	821	-	-	-	-	-	-	748	-	-	-	-	-
Dept. of Energy	2,929	1,996	136	136	-	-	-	130	523	-	-	-	143	-
Dept. of Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HHS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	109	-	-	-	-	-	-	-	-	-	-	109	-	-
Dept. of Justice	36	-	-	-	-	-	-	-	36	-	-	-	-	-
Dept. of Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Transport.	92	-	-	-	-	-	-	-	92	-	-	-	-	-
EPA	161	127	-	-	-	-	-	-	34	-	-	-	-	-
NASA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NSF	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear Regul.Comm.	1,197	787	68	68	-	-	34	7	300	-	-	-	-	-
Other agency	68	34	-	-	-	-	-	-	34	-	-	-	-	-
Agency unknown[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Federal support	4,345	4,081	34	34	-	-	-	77	102	-	18	-	34	-
Support not known	86	86	-	-	-	-	-	-	-	-	-	-	-	-
Support not reported	612	164	-	-	-	-	-	-	34	-	-	-	-	414
Petroleum	14,165	12,252	66	66	-	-	-	109	379	-	211	-	143	1,006
With support[1]	641	120	34	34	-	-	-	109	379	-	-	-	-	-
AID	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Commerce	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Defense	179	-	-	-	-	-	-	100	70	-	-	-	-	-
Dept. of Energy	314	120	34	34	-	-	-	-	160	-	-	-	-	-
Dept. of Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HHS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	128	-	-	-	-	-	-	-	128	-	-	-	-	-
Dept. of Justice	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Transport.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NASA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NSF	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear Regul.Comm.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other agency	54	-	-	-	-	-	-	-	54	-	-	-	-	-
Agency unknown[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Federal support	12,157	11,653	24	24	-	-	-	-	-	-	211	-	143	127
Support not known	161	153	8	8	-	-	-	-	-	-	-	-	-	-
Support not reported	1,205	326	-	-	-	-	-	-	-	-	-	-	-	879

See Footnotes at end of Table

Table B-14. Number of Employed Scientists and Engineers by Field, Federal Agency of Support, and Type of Employer: 1982—continued

Field and Agency of Support	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Other	222,890	178,567	6,677	5,714	719	244	803	2,861	12,240	746	5,530	3,446	1,282	10,860
With support[1]	65,250	41,872	3,056	2,774	282	-	166	2,056	11,588	603	3,825	1,507	465	112
AID	386	386	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	2,612	1,043	517	505	12	-	-	-	1,000	-	34	18	-	-
Dept. of Commerce	1,007	551	305	305	-	-	-	44	107	-	-	-	-	-
Dept. of Defense	37,822	26,884	362	362	-	-	-	1,101	8,651	449	152	-	145	78
Dept. of Energy	8,337	6,424	581	581	-	-	18	430	532	-	92	42	218	-
Dept. of Education	908	368	471	298	173	-	68	-	-	-	-	-	-	-
Dept. of HHS	963	385	193	193	-	-	80	34	104	120	38	-	-	-
Dept. of HUD	1,470	1,204	-	-	-	-	-	-	44	-	18	203	-	-
Dept. of Interior	1,433	602	102	102	-	-	-	34	395	34	165	102	-	-
Dept. of Justice	145	112	-	-	-	-	-	-	34	-	-	-	-	-
Dept. of Labor	312	109	-	-	-	-	-	-	161	-	42	-	-	-
Dept. of Transport.	4,389	2,109	-	-	-	-	-	275	380	-	1,247	311	34	34
EPA	9,007	4,460	241	241	-	-	-	66	1,154	34	2,156	894	-	-
NASA	6,062	4,961	195	195	-	-	-	124	706	-	-	-	76	-
NSF	713	324	287	287	-	-	-	68	34	-	-	-	-	-
Nuclear Regul.Comm.	568	398	-	-	-	-	-	102	34	-	-	-	34	-
Other agency	1,684	923	77	77	-	-	34	-	520	-	18	14	68	-
Agency unknown[2]	904	629	109	-	109	-	-	34	-	-	36	96	-	-
No Federal support	133,809	124,746	2,850	2,646	46	158	460	817	503	143	1,267	1,586	750	687
Support not known	7,896	6,220	685	275	358	52	177	-	34	-	197	308	8	68
Support not reported	16,175	5,720	86	18	34	34	-	109	115	-	240	44	68	[illegible]
Life scientists	137,483	46,896	52,320	47,134	4,719	467	3,640	3,927	18,232	387	9,124	2,038	360	1,890
With support[1]	55,032	3,044	24,396	23,582	666	148	1,380	1,862	17,592	356	5,117	758	110	416
AID	800	-	679	679	-	-	-	-	67	11	21	-	21	-
Dept. of Agriculture	20,272	494	8,559	8,334	109	117	-	183	9,048	-	1,638	210	-	139
Dept. of Commerce	1,440	61	303	303	-	-	-	10	555	10	502	-	-	-
Dept. of Defense	3,001	732	408	408	-	-	29	64	1,586	119	21	-	21	21
Dept. of Energy	2,249	595	900	791	109	-	-	172	317	-	86	117	21	31
Dept. of Education	1,133	134	805	374	399	31	31	-	31	-	-	133	-	-
Dept. of HHS	[illegible]	656	10,952	10,921	31	-	765	1,131	1,731	217	250	32	21	43
Dept. of HUD	34	34	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	6,552	324	1,097	1,097	-	-	-	95	3,070	-	1,840	96	-	31
Dept. of Justice	152	21	-	-	-	-	-	-	130	-	-	-	-	-
Dept. of Labor	300	160	-	-	-	-	-	-	130	-	10	-	-	-
Dept. of Transport.	452	238	119	119	-	-	-	12	43	-	41	-	-	-
EPA	3,409	623	803	803	-	-	21	96	1,094	-	545	226	-	-
NASA	786	227	162	162	-	-	-	129	140	-	109	-	-	-
NSF	3,943	10	3,515	3,494	-	21	20	279	89	-	31	-	-	-
Nuclear Regul.Comm.	140	-	119	119	-	-	-	-	21	-	-	-	-	-
Other agency	1,829	140	306	306	-	-	455	101	379	-	225	31	39	150
Agency unknown[2]	1,036	74	550	530	10	-	79	39	-	-	158	109	28	-
No Federal support	75,126	41,188	24,444	21,049	3,108	288	2,130	1,866	377	10	3,435	1,084	228	363
Support not known	4,291	725	2,801	1,944	826	31	69	62	25	-	424	156	-	29
Support not reported	3,033	939	677	559	118	-	71	136	238	-	148	31	21	772
Biologists	86,306	27,182	31,236	26,989	4,141	106	1,464	2,241	14,131	193	8,197	1,478	213	982
With support[1]	34,793	1,940	12,673	12,133	518	21	597	1,121	13,679	183	3,743	574	61	222
AID	100	-	43	43	-	-	-	-	46	11	-	-	-	-
Dept. of Agriculture	12,646	222	3,586	3,586	-	-	-	74	7,074	-	1,481	188	-	21
Dept. of Commerce	879	40	269	269	-	-	-	-	322	10	239	-	-	-
Dept. of Defense	2,261	433	280	280	-	-	9	43	1,313	119	21	-	21	21
Dept. of Energy	1,788	428	745	636	109	-	-	172	230	-	43	117	21	31
Dept. of Education	998	134	700	310	369	21	9	-	21	-	-	133	-	-
Dept. of HHS	7,518	313	5,279	5,279	-	-	372	495	862	44	110	21	21	-
Dept. of HUD	34	34	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	5,433	244	1,097	1,097	-	-	-	74	2,672	-	1,263	53	-	31
Dept. of Justice	130	-	-	-	-	-	-	-	130	-	-	-	-	-
Dept. of Labor	300	160	-	-	-	-	-	-	130	-	10	-	-	-
Dept. of Transport.	322	238	-	-	-	-	-	-	43	-	41	-	-	-
EPA	2,883	405	663	663	-	-	21	88	976	-	504	226	-	-
NASA	604	118	130	130	-	-	-	129	119	-	109	-	-	-
NSF	2,999	10	2,643	2,621	-	21	10	236	80	-	21	-	-	-
Nuclear Regul.Comm.	31	-	10	10	-	-	-	-	21	-	-	-	-	-
Other agency	950	140	110	110	-	-	107	80	219	-	106	31	39	117
Agency unknown[2]	555	50	300	290	10	-	69	39	-	-	96	-	-	-
No Federal support	45,904	24,596	16,233	13,301	2,880	52	790	1,067	221	10	2,018	727	152	180
Support not known	2,861	516	1,736	1,070	634	31	26	53	3	-	371	146	-	10
Support not reported	1,656	131	594	485	109	-	39	-	228	-	84	31	-	570
Biochemists	9,636	2,625	5,210	5,192	19	-	496	393	726	-	112	-	-	62
With support[1]	5,162	138	3,677	3,668	9	-	174	352	716	-	62	-	-	43
AID	117	-	117	117	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	709	-	452	452	-	-	-	109	148	-	-	-	-	-
Dept. of Commerce	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Defense	172	26	55	55	-	-	10	21	58	-	-	-	-	-
Dept. of Energy	123	-	46	46	-	-	-	-	68	-	10	-	-	-
Dept. of Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of HHS	4,001	53	3,026	3,017	9	-	145	300	394	-	62	-	-	21
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	58	58	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Justice	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Transport.	10	-	10	10	-	-	-	-	-	-	-	-	-	-
EPA	204	58	109	109	-	-	-	10	26	-	-	-	-	-
NASA	10	-	10	10	-	-	-	-	-	-	-	-	-	-
NSF	395	-	364	364	-	-	10	21	-	-	-	-	-	-
Nuclear Regul.Comm.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other agency	230	-	94	94	-	-	29	21	64	-	-	-	-	21
Agency unknown[2]	31	-	31	31	-	-	-	-	-	-	-	-	-	-
No Federal support	4,095	2,301	1,400	1,400	-	-	302	40	-	-	50	-	-	-
Support not known	310	155	124	124	-	-	21	-	-	-	-	-	-	10
Support not reported	59	31	9	-	9	-	-	-	10	-	-	-	-	10

See Footnotes at end of Table

Table B-14. Number of Employed Scientists and Engineers by Field, Federal Agency of Support, and Type of Employer: 1982—continued

Field and Agency of Support	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Agricultural scientists	27,836	12,963	8,418	7,843	540	236	-	602	2,520	-	2,567	348	126	303
With support[1]	9,816	533	5,196	4,939	130	127	-	43	2,477	-	1,224	173	49	120
AID	584	-	520	520	-	-	-	-	21	-	21	-	21	-
Dept. of Agriculture	6,877	273	4,522	4,296	109	117	-	-	1,795	-	157	21	-	109
Dept. of Commerce	561	21	34	34	-	-	-	10	233	-	263	-	-	-
Dept. of Defense	261	251	10	10	-	-	-	-	-	-	-	-	-	-
Dept. of Energy	210	56	109	109	-	-	-	-	-	-	43	-	-	-
Dept. of Education	62	-	53	21	21	10	-	-	9	-	-	-	-	-
Dept. of HHS	127	-	64	43	21	-	-	-	62	-	-	-	-	-
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	1,050	21	-	-	-	-	-	21	387	-	577	43	-	-
Dept. of Justice	21	21	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Transport.	12	-	-	-	-	-	-	12	-	-	-	-	-	-
EPA	262	150	31	31	-	-	-	-	60	-	31	-	-	-
NASA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NSF	303	-	294	294	-	-	-	-	9	-	-	-	-	-
Nuclear Regul.Comm.	109	-	109	109	-	-	-	-	-	-	-	-	-	-
Other agency	218	-	33	33	-	-	-	-	64	-	109	-	-	12
Agency unknown[2]	378	12	177	177	-	-	-	-	-	-	53	109	28	-
No Federal support	16,061	11,610	2,499	2,162	228	109	-	422	21	-	1,236	164	76	31
Support not known	789	55	671	489	182	-	-	-	21	-	31	10	-	-
Support not reported	1,171	756	52	52	-	-	-	136	-	-	74	-	-	152
Medical scientists	14,716	3,137	7,486	7,310	20	127	1,696	692	855	173	246	203	21	233
With support[1]	5,262	434	2,851	2,842	10	-	608	346	720	173	89	10	-	31
AID	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Agriculture	40	-	-	-	-	-	-	-	31	-	-	-	-	9
Dept. of Commerce	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Defense	307	21	61	61	-	-	10	-	215	-	-	-	-	-
Dept. of Energy	129	109	-	-	-	-	-	-	19	-	-	-	-	-
Dept. of Education	74	-	52	42	10	-	21	-	-	-	-	-	-	-
Dept. of HHS	4,154	292	2,583	2,583	-	-	248	336	413	173	79	10	-	21
Dept. of HUD	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Interior	11	-	-	-	-	-	-	-	11	-	-	-	-	-
Dept. of Justice	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Labor	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Transport.	109	-	109	109	-	-	-	-	-	-	-	-	-	-
EPA	41	-	-	-	-	-	-	-	31	-	10	-	-	-
NASA	152	109	21	21	-	-	-	-	21	-	-	-	-	-
NSF	245	-	214	214	-	-	-	21	-	-	9	-	-	-
Nuclear Regul.Comm.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other agency	431	-	71	71	-	-	319	-	31	-	10	-	-	-
Agency unknown[2]	72	12	41	41	-	-	10	-	-	-	10	-	-	-
No Federal support	8,976	2,081	4,313	4,186	-	127	1,037	336	135	-	126	193	-	152
Support not known	331	-	271	261	10	-	20	10	-	-	21	-	-	10
Support not reported	146	21	21	21	-	-	31	-	-	-	10	-	21	40
Psychologists	84,140	23,222	36,772	21,486	3,241	12,045	10,984	4,919	1,527	270	2,743	1,813	488	1,464
With support[1]	23,179	2,577	10,056	4,446	117	5,492	4,223	2,269	1,519	270	1,111	716	239	200
AID	109	-	-	-	-	-	-	-	-	-	109	-	-	-
Dept. of Agriculture	283	109	-	-	-	-	43	109	8	-	14	-	-	-
Dept. of Commerce	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Defense	2,247	1,006	272	272	-	-	181	174	430	186	-	-	-	-
Dept. of Energy	56	56	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Education	6,813	300	5,600	578	117	4,905	167	308	18	-	156	146	118	-
Dept. of HHS	10,561	725	3,409	2,917	-	492	3,006	1,586	445	64	576	505	173	73
Dept. of HUD	221	109	-	-	-	-	-	113	-	-	-	-	-	-
Dept. of Interior	328	101	163	109	-	54	64	-	-	-	-	-	-	-
Dept. of Justice	495	109	109	109	-	-	64	128	-	-	75	11	-	-
Dept. of Labor	384	181	-	-	-	-	9	161	-	-	13	-	-	-
Dept. of Transport.	495	230	-	-	-	-	21	-	128	-	117	-	-	-
EPA	9	-	-	-	-	-	-	-	-	-	-	-	-	9
NASA	206	34	109	109	-	-	-	-	64	-	-	-	-	-
NSF	1,119	109	929	929	-	-	9	18	-	-	-	-	-	54
Nuclear Regul.Comm.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other agency	1,380	34	118	118	-	-	656	118	403	20	-	-	12	-
Agency unknown[2]	946	-	306	64	-	242	257	64	-	-	136	118	-	83
No Federal support	52,510	19,799	22,803	15,874	2,351	4,578	5,178	1,865	8	-	1,369	975	163	301
Support not known	5,771	262	3,266	1,038	547	1,681	1,199	509	-	-	229	122	-	184
Support not reported	2,680	584	649	129	226	294	384	245	-	-	115	-	54	769
Social scientists	116,100	44,702	41,361	36,769	4,136	455	3,007	7,578	8,226	36	4,203	3,287	1,532	2,169
With support[1]	28,731	4,452	7,474	6,598	652	224	1,328	2,956	7,305	36	2,414	2,002	332	432
AID	656	12	173	173	-	-	-	308	141	-	-	-	24	-
Dept. of Agriculture	2,743	446	1,167	1,167	-	-	-	172	866	-	39	29	12	12
Dept. of Commerce	859	86	65	65	-	-	-	25	564	-	70	36	12	-
Dept. of Defense	3,018	1,586	292	280	12	-	-	181	850	24	73	-	12	-
Dept. of Energy	1,134	456	101	101	-	-	-	64	443	-	58	-	12	-
Dept. of Education	2,484	187	1,783	1,061	516	206	117	230	42	-	86	27	12	-
Dept. of HHS	8,871	550	2,076	1,718	218	141	1,093	1,895	654	12	1,491	680	109	311
Dept. of HUD	760	117	24	24	-	-	-	143	134	-	131	210	-	-
Dept. of Interior	913	154	83	83	-	-	-	27	480	-	145	12	-	12
Dept. of Justice	1,206	327	337	337	-	-	-	12	380	-	109	64	-	-
Dept. of Labor	2,236	408	300	191	109	-	-	82	774	-	233	440	-	-
Dept. of Transport.	1,499	628	36	36	-	-	-	109	259	-	113	245	-	109
EPA	708	371	39	39	-	-	-	29	119	-	12	137	-	-
NASA	171	152	18	18	-	-	-	-	-	-	-	-	-	-
NSF	1,596	125	1,398	1,173	226	-	-	63	11	-	-	-	-	-
Nuclear Regul.Comm.	50	-	-	-	-	-	-	15	24	-	11	-	-	-
Other agency	2,513	305	364	232	132	-	64	253	1,259	-	12	127	130	-
Agency unknown[2]	801	145	405	296	109	-	54	117	24	-	-	-	57	-
No Federal support	78,858	39,008	30,271	27,680	2,414	177	1,243	4,185	375	-	1,275	909	1,140	451
Support not known	5,010	653	3,025	1,913	1,058	54	382	230	12	-	288	366	24	30
Support not reported	3,502	589	591	579	12	-	54	207	534	-	226	9	36	1,256

See Footnotes at end of Table

Table B-14. Number of Employed Scientists and Engineers by Field, Federal Agency of Support, and Type of Employer: 1982—continued

Field and Agency of Support	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Economists	**46,965**	**23,332**	**13,320**	**11,941**	**1,379**	-	**151**	**1,352**	**5,286**	**12**	**835**	**160**	**1,279**	**1,241**
With support[1]	10,444	2,382	2,183	1,940	243	-	109	431	4,626	12	332	98	163	109
AID	393	12	125	125	-	-	-	127	117	-	-	-	12	-
Dept. of Agriculture	1,704	161	750	750	-	-	-	27	713	-	24	18	12	-
Dept. of Commerce	644	75	65	65	-	-	-	-	480	-	-	12	12	-
Dept. of Defense	1,320	891	24	12	12	-	-	24	358	12	-	-	12	-
Dept. of Energy	942	308	101	101	-	-	-	49	413	-	58	-	12	-
Dept. of Education	216	24	156	35	122	-	-	-	12	-	12	-	12	-
Dept. of HHS	1,147	281	394	285	109	-	109	133	165	-	48	18	-	-
Dept. of HUD	222	67	12	12	-	-	-	-	119	-	12	12	-	-
Dept. of Interior	237	44	36	36	-	-	-	-	134	-	24	-	-	-
Dept. of Justice	201	44	27	27	-	-	-	-	130	-	-	-	-	-
Dept. of Labor	1,219	284	71	71	-	-	-	36	644	-	154	30	-	-
Dept. of Transport.	765	496	-	-	-	-	-	-	133	-	12	15	-	109
EPA	394	236	39	39	-	-	-	12	83	-	12	12	-	-
NASA	12	12	-	-	-	-	-	-	-	-	-	-	-	-
NSF	605	125	454	454	-	-	-	27	-	-	-	-	-	-
Nuclear Regul.Comm.	50	-	-	-	-	-	-	15	24	-	11	-	-	-
Other agency	1,371	294	24	24	-	-	-	12	917	-	-	18	106	-
Agency unknown[2]	322	145	121	12	109	-	-	-	24	-	-	-	33	-
No Federal support	33,207	20,262	9,903	9,196	706	-	42	909	330	-	465	61	1,056	178
Support not known	1,495	301	1,091	661	430	-	-	-	12	-	38	-	24	30
Support not reported	1,820	388	143	143	-	-	-	12	318	-	-	-	36	924
Sociologists / anthropologists	**22,993**	**7,540**	**10,901**	**9,757**	**990**	**153**	**378**	**1,643**	**814**	-	**875**	**207**	**184**	**453**
With support[1]	6,180	748	2,600	2,446	15	138	109	884	802	-	468	141	121	309
AID	95	-	48	48	-	-	-	36	-	-	-	-	12	-
Dept. of Agriculture	451	36	180	180	-	-	-	124	117	-	3	-	-	12
Dept. of Commerce	42	-	-	-	-	-	-	12	18	-	12	-	-	-
Dept. of Defense	436	217	15	15	-	-	-	12	179	-	15	-	-	-
Dept. of Energy	136	136	-	-	-	-	-	-	-	-	-	-	-	-
Dept. of Education	1,006	143	650	512	-	138	-	121	18	-	64	12	-	-
Dept. of HHS	2,623	27	1,104	981	-	123	109	599	180	-	198	-	109	297
Dept. of HUD	159	36	12	12	-	-	-	109	-	-	-	-	-	-
Dept. of Interior	332	71	36	36	-	-	-	-	126	-	75	12	-	12
Dept. of Justice	395	-	274	274	-	-	-	12	109	-	-	-	-	-
Dept. of Labor	285	124	-	-	-	-	-	12	18	-	15	117	-	-
Dept. of Transport.	137	24	24	24	-	-	-	-	-	-	90	-	-	-
EPA	15	15	-	-	-	-	-	-	-	-	-	-	-	-
NASA	109	109	-	-	-	-	-	-	-	-	-	-	-	-
NSF	246	-	200	200	-	-	-	36	11	-	-	-	-	-
Nuclear Regul.Comm.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other agency	451	-	175	160	15	-	-	226	39	-	12	-	-	-
Agency unknown[2]	171	-	171	171	-	-	-	-	-	-	-	-	-	-
No Federal support	15,206	6,622	7,216	6,507	694	15	269	690	-	-	298	36	63	12
Support not known	1,141	61	900	630	270	-	-	42	-	-	109	30	-	-
Support not reported	466	109	186	174	12	-	-	27	12	-	-	-	-	133
Other social scientists	**46,142**	**13,830**	**17,141**	**15,072**	**1,767**	**303**	**2,478**	**4,582**	**2,127**	**24**	**2,494**	**2,921**	**70**	**474**
With support[1]	12,106	1,322	2,692	2,211	394	86	1,110	1,641	1,878	24	1,614	1,764	48	14
AID	168	-	-	-	-	-	-	144	24	-	-	-	-	-
Dept. of Agriculture	588	250	258	258	-	-	-	21	36	-	12	11	-	-
Dept. of Commerce	173	12	-	-	-	-	-	13	66	-	58	24	-	-
Dept. of Defense	1,260	478	253	253	-	-	-	145	313	12	58	-	-	-
Dept. of Energy	57	12	-	-	-	-	-	15	30	-	-	-	-	-
Dept. of Education	1,261	20	976	514	394	68	117	109	12	-	12	15	-	-
Dept. of HHS	5,101	242	578	451	109	18	878	1,163	308	12	1,245	662	-	14
Dept. of HUD	379	12	-	-	-	-	-	34	15	-	119	198	-	-
Dept. of Interior	344	39	12	12	-	-	-	27	220	-	46	-	-	-
Dept. of Justice	612	283	36	36	-	-	-	-	121	-	109	64	-	-
Dept. of Labor	733	-	228	119	109	-	-	34	113	-	64	294	-	-
Dept. of Transport.	598	100	12	12	-	-	-	109	127	-	12	230	-	-
EPA	299	121	-	-	-	-	-	17	36	-	-	126	-	-
NASA	50	32	18	18	-	-	-	-	-	-	-	-	-	-
NSF	745	-	745	519	226	-	-	-	-	-	-	-	-	-
Nuclear Regul.Comm.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other agency	691	11	166	49	117	-	64	15	303	-	-	109	24	-
Agency unknown[2]	308	-	113	113	-	-	54	117	-	-	-	-	24	-
No Federal support	30,445	12,124	13,153	11,976	1,014	162	932	2,586	45	-	512	812	21	261
Support not known	2,374	292	1,035	622	358	54	382	186	-	-	142	336	-	-
Support not reported	1,216	92	262	262	-	-	54	168	204	-	226	9	-	200

NOTE: Detail may not add to total due to rounding.

[1] Sum of support agencies may exceed total with support due to multiple responses.

[2] Includes agency not reported.

Source: National Science Foundation.

Table B-15. Number of Employed Scientists and Engineers by Field, Primary Work Activity, and Type of Employer: 1982

Field and Primary Work Activity	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Total, all fields	**1,798,344**	**1,203,997**	**224,382**	**185,399**	**24,446**	**14,517**	**22,506**	**36,654**	**132,583**	**3,070**	**50,384**	**31,564**	**7,444**	**46,790**
Research and devel.	494,793	367,265	49,718	49,210	299	208	2,322	11,204	[illegible]	610	10,268	4,724	2,452	1,660
Basic research	47,614	7,116	29,398	29,398	-	-	617	2,774	[illegible]	84	733	119	102	263
Applied research	97,261	50,577	16,927	16,837	45	45	1,027	4,708	[illegible]	203	3,706	823	1,161	582
Development/design	349,918	309,572	3,392	2,975	254	164	679	3,723	20,617	322	5,827	3,781	1,189	815
Management/admin.	524,017	397,086	26,477	22,374	4,372	1,731	4,781	13,162	45,462	1,531	18,106	11,826	1,542	2,043
Of R & D	169,798	129,414	8,724	7,452	996	276	809	5,889	19,063	431	3,114	1,431	562	380
Of other than R & D	354,220	267,672	19,753	14,921	3,376	1,455	3,972	7,273	26,400	1,100	14,992	10,395	980	1,683
Teaching	134,463	6,070	122,268	102,318	18,166	1,783	1,829	1,330	867	48	727	397	430	497
Consulting	86,383	77,361	1,893	1,112	62	719	1,070	983	2,192	70	1,246	686	368	494
Production/inspect.	210,067	166,292	2,742	1,544	236	960	1,429	2,066	18,239	427	9,520	7,849	907	596
Rpt/stat/comp appl.	149,340	109,016	5,689	4,811	480	397	1,530	3,753	17,554	188	7,121	2,999	1,004	486
Other	81,488	52,571	10,505	1,801	178	8,527	8,755	3,513	1,316	128	2,136	1,714	448	401
Not reported	78,792	28,316	3,071	2,228	652	191	791	641	2,394	66	1,237	1,369	292	40,612
Physical scientists	**115,821**	**69,336**	**28,783**	**24,202**	**2,541**	**40**	**659**	**3,742**	**10,753**	**27**	**1,802**	**1,017**	**237**	**1,466**
Research and devel.	45,594	29,709	7,299	7,229	70	-	192	1,748	5,759	9	425	89	170	195
Basic research	10,803	2,643	5,505	5,505	-	-	-	930	1,643	-	28	17	36	-
Applied research	19,062	12,850	1,574	1,574	-	-	192	526	3,318	-	312	62	134	115
Development/design	15,709	14,216	220	150	70	-	-	292	798	9	85	10	-	80
Management/admin.	34,292	26,615	2,928	2,534	394	-	134	1,185	2,939	-	300	75	58	58
Of R & D	18,666	13,902	1,553	1,436	117	-	-	1,008	2,118	-	18	9	58	-
Of other than R & D	15,626	12,713	1,376	1,099	277	-	134	177	821	-	282	65	-	58
Teaching	16,355	179	15,933	13,875	2,019	40	-	58	58	-	-	-	-	126
Consulting	1,444	1,140	-	-	-	-	-	209	95	-	-	-	-	-
Production/inspect.	11,807	8,231	145	87	58	-	111	350	1,354	-	822	774	9	-
Rpt/stat/comp appl.	2,047	1,036	166	168	-	-	-	193	480	18	73	80	-	-
Other	1,286	888	109	109	-	-	198	-	-	-	92	-	-	-
Not reported	2,997	1,539	200	200	-	-	24	-	66	-	80	-	-	1,067
Chemists	**78,028**	**53,541**	**14,662**	**12,819**	**1,821**	**22**	**533**	**1,306**	**4,726**	**27**	**1,356**	**950**	**84**	**843**
Research and devel.	29,001	22,359	3,257	3,187	70	-	192	431	2,176	9	307	58	17	195
Basic research	4,662	1,658	2,247	2,247	-	-	-	256	456	-	28	17	-	-
Applied research	12,694	9,812	923	923	-	-	192	100	1,300	-	194	41	17	115
Development/design	11,645	10,889	87	17	70	-	-	75	420	9	85	-	-	80
Management/admin.	23,895	20,118	1,621	1,336	285	-	134	488	1,172	-	242	63	58	-
Of R & D	11,851	9,974	699	582	117	-	-	362	749	-	-	9	58	-
Of other than R & D	12,044	10,144	922	754	168	-	134	126	422	-	242	53	-	-
Teaching	9,863	109	9,570	8,142	1,407	22	-	-	58	-	-	-	-	126
Consulting	676	676	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	10,230	7,380	145	87	58	-	102	216	943	-	672	762	9	-
Rpt/stat/comp appl.	1,400	713	58	58	-	-	-	171	318	18	55	66	-	-
Other	1,009	848	-	-	-	-	81	-	-	-	80	-	-	-
Not reported	1,953	1,338	9	9	-	-	24	-	58	-	-	-	-	523
Physicists / astronomers	**25,802**	**9,806**	**10,248**	**9,617**	**612**	**18**	**126**	**1,574**	**3,385**	-	**68**	**10**	**36**	**546**
Research and devel.	10,355	3,748	3,396	3,396	-	-	-	866	2,241	-	58	10	36	-
Basic research	4,716	516	2,832	2,832	-	-	-	557	775	-	-	-	36	-
Applied research	3,441	1,397	505	505	-	-	-	250	1,230	-	58	-	-	-
Development/design	2,198	1,834	58	58	-	-	-	58	236	-	-	10	-	-
Management/admin.	7,431	4,986	963	963	-	-	-	487	936	-	-	-	-	56
Of R & D	5,272	3,260	745	745	-	-	-	435	832	-	-	-	-	-
Of other than R & D	2,158	1,727	218	218	-	-	-	52	104	-	-	-	-	56
Teaching	5,680	36	5,586	4,956	612	18	-	58	-	-	-	-	-	-
Consulting	319	144	-	-	-	-	-	117	56	-	-	-	-	-
Production/inspect.	625	471	-	-	-	-	9	24	110	-	10	-	-	-
Rpt/stat/comp appl.	359	222	85	85	-	-	-	21	30	-	-	-	-	-
Other	226	-	109	109	-	-	117	-	-	-	-	-	-	-
Not reported	807	201	109	109	-	-	-	-	9	-	-	-	-	487
Other physical scientists	**11,991**	**5,986**	**1,874**	**1,765**	**109**	-	-	**862**	**2,642**	-	**377**	**57**	**117**	**77**
Research and devel.	6,237	3,601	646	646	-	-	-	450	1,341	-	60	21	117	-
Basic research	1,424	469	426	426	-	-	-	117	412	-	-	-	-	-
Applied research	2,947	1,640	146	146	-	-	-	175	788	-	60	21	117	-
Development/design	1,866	1,492	75	75	-	-	-	158	141	-	-	-	-	-
Management/admin.	2,966	1,511	345	236	109	-	-	210	831	-	58	12	-	-
Of R & D	1,543	668	109	109	-	-	-	210	537	-	18	-	-	-
Of other than R & D	1,424	842	236	127	109	-	-	-	294	-	40	12	-	-
Teaching	811	34	777	777	-	-	-	-	-	-	-	-	-	-
Consulting	448	320	-	-	-	-	-	92	36	-	-	-	-	-
Production/inspect.	952	380	-	-	-	-	-	109	301	-	150	12	-	-
Rpt/stat/comp appl.	287	101	24	24	-	-	-	-	132	-	18	12	-	-
Other	51	40	-	-	-	-	-	-	-	-	12	-	-	-
Not reported	236	-	81	81	-	-	-	-	-	-	80	-	-	77
Mathematical scientists	**43,944**	**17,400**	**20,091**	**16,635**	**3,355**	**101**	**202**	**698**	**4,095**	**27**	**491**	**155**	**99**	**687**
Research and devel.	6,190	2,495	1,969	1,969	-	-	-	126	1,342	-	112	-	51	95
Basic research	1,830	40	1,581	1,581	-	-	-	9	170	-	-	-	-	29
Applied research	2,363	1,048	388	388	-	-	-	97	634	-	92	-	51	54
Development/design	1,996	1,407	-	-	-	-	-	20	538	-	20	-	-	12
Management/admin.	12,659	10,107	1,205	904	236	65	12	255	898	18	77	54	-	34
Of R & D	5,107	3,792	356	291	-	65	12	216	602	-	59	36	-	34
Of other than R & D	7,552	6,315	849	613	236	-	-	39	296	18	18	18	-	-
Teaching	16,240	139	15,938	12,928	2,974	35	-	-	145	-	-	-	-	18
Consulting	758	534	127	127	-	-	18	36	43	-	-	-	-	-
Production/inspect.	1,627	1,303	109	-	109	-	-	-	205	-	-	10	-	-
Rpt/stat/comp appl.	5,139	2,283	515	497	18	-	172	281	1,437	9	284	91	48	18
Other	384	366	18	-	18	-	-	-	-	-	-	-	-	-
Not reported	947	172	210	210	-	-	-	-	25	-	18	-	-	522

See Footnotes at end of Table

Table B-15. Number of Employed Scientists and Engineers by Field, Primary Work Activity, and Type of Employer: 1982—continued

Field and Primary Work Activity	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Mathematicians	**36,945**	**14,910**	**17,740**	**14,323**	**3,337**	**80**	**117**	**508**	**2,814**	**-**	**91**	**92**	**44**	**629**
Research and devel.	5,336	2,224	1,717	1,717	-	-	-	100	1,118	-	38	-	36	95
Basic research	1,786	40	1,572	1,572	-	-	-	9	134	-	-	-	-	29
Applied research	1,695	885	144	144	-	-	-	79	479	-	18	-	36	54
Development/design	1,855	1,299	-	-	-	-	-	20	505	-	20	-	-	12
Management/admin.	11,491	9,236	1,160	868	236	56	-	225	771	-	30	36	-	34
Of R & D	4,420	3,308	311	255	-	56	-	198	504	-	30	36	-	34
Of other than R & D	7,070	5,928	849	613	236	-	-	27	267	-	-	-	-	-
Teaching	14,758	127	14,468	11,470	2,974	24	-	-	145	-	-	-	-	18
Consulting	455	409	-	-	-	-	-	36	10	-	-	-	-	-
Production/inspect.	1,404	1,134	109	-	109	-	-	-	151	-	-	10	-	-
Rpt/stat/comp appl.	2,278	1,276	75	75	-	-	117	139	584	-	24	46	8	-
Other	384	366	18	-	18	-	-	-	-	-	-	-	-	-
Not reported	838	136	192	192	-	-	-	-	25	-	-	-	-	482
Statisticians	**7,000**	**2,460**	**2,351**	**2,312**	**18**	**21**	**65**	**190**	**1,281**	**27**	**400**	**83**	**55**	**87**
Research and devel.	854	271	252	252	-	-	-	18	224	-	74	-	15	-
Basic research	45	-	9	9	-	-	-	-	36	-	-	-	-	-
Applied research	669	163	243	243	-	-	-	18	156	-	74	-	15	-
Development/design	141	108	-	-	-	-	-	-	33	-	-	-	-	-
Management/admin.	1,168	871	45	36	-	9	12	30	127	18	47	18	-	-
Of R & D	686	484	45	36	-	9	12	18	98	-	29	-	-	-
Of other than R & D	482	387	-	-	-	-	-	12	29	18	18	18	-	-
Teaching	1,481	12	1,469	1,457	-	12	-	-	-	-	-	-	-	-
Consulting	303	125	127	127	-	-	18	-	33	-	-	-	-	-
Production/inspect.	223	169	-	-	-	-	-	-	54	-	-	-	-	-
Rpt/stat/comp appl.	2,861	1,008	440	422	18	-	55	142	843	9	261	45	40	18
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	109	34	18	18	-	-	-	-	-	-	18	-	-	39
Computer specialists	**168,578**	**133,047**	**9,559**	**7,054**	**1,770**	**736**	**1,968**	**3,159**	**11,663**	**283**	**4,147**	**2,059**	**615**	**2,089**
Research and devel.	30,155	24,710	1,023	950	58	18	333	695	2,162	-	774	178	214	66
Basic research	857	134	487	487	-	-	-	-	165	-	-	36	36	-
Applied research	3,060	2,087	241	205	36	-	109	107	451	-	15	20	-	30
Development/design	26,238	22,489	295	258	20	18	224	587	1,546	-	750	122	178	36
Management/admin.	28,453	22,596	1,803	1,223	254	326	453	454	1,764	247	679	292	56	109
Of R & D	10,585	9,289	270	161	109	-	58	201	570	-	96	80	20	-
Of other than R & D	17,868	13,307	1,533	1,062	145	326	395	253	1,194	247	583	212	36	109
Teaching	4,546	1,123	3,304	2,351	933	20	-	-	74	-	10	-	-	36
Consulting	9,775	9,312	69	69	-	-	-	-	164	36	30	36	20	109
Production/inspect.	4,313	3,390	129	20	-	109	24	173	541	-	46	-	-	10
Rpt/stat/comp appl.	85,942	68,604	3,014	2,333	418	263	1,031	1,728	6,665	-	2,606	1,447	325	319
Other	1,977	1,832	-	-	-	-	-	109	-	-	-	36	-	-
Not reported	3,417	1,460	218	109	109	-	127	-	84	-	-	70	-	1,439
Environmental scientists	**42,467**	**26,442**	**5,328**	**4,713**	**615**	**-**	**-**	**376**	**7,339**	**152**	**1,982**	**181**	**109**	**519**
Research and devel.	17,305	10,170	2,091	2,091	-	-	-	174	3,740	88	874	18	36	113
Basic research	3,538	473	1,401	1,401	-	-	-	113	1,257	18	182	-	18	77
Applied research	9,264	5,676	672	672	-	-	-	61	2,099	52	648	18	18	18
Development/design	4,504	4,021	18	18	-	-	-	-	384	18	45	-	-	18
Management/admin.	11,080	8,193	726	599	127	-	-	35	1,483	-	554	36	54	-
Of R & D	4,510	3,062	226	207	18	-	-	35	869	-	301	-	18	-
Of other than R & D	6,570	5,130	500	391	109	-	-	-	614	-	253	36	36	-
Teaching	2,701	65	2,457	1,969	488	-	-	18	143	18	-	-	-	-
Consulting	3,697	3,449	-	-	-	-	-	-	65	-	70	21	18	73
Production/inspect.	3,843	2,678	18	18	-	-	-	18	749	-	308	71	-	-
Rpt/stat/comp appl.	2,458	1,203	36	36	-	-	-	109	882	45	138	34	-	11
Other	370	337	-	-	-	-	-	-	33	-	-	-	-	-
Not reported	953	347	-	-	-	-	-	22	244	-	18	-	-	323
Earth scientists	**35,859**	**24,861**	**3,937**	**3,349**	**588**	**-**	**-**	**121**	**4,461**	**-**	**1,853**	**111**	**73**	**442**
Research and devel.	14,212	9,617	1,046	1,046	-	-	-	68	2,534	-	836	18	36	54
Basic research	2,078	405	631	631	-	-	-	36	806	-	163	-	18	18
Applied research	7,989	5,378	415	415	-	-	-	32	1,480	-	630	18	18	18
Development/design	4,144	3,834	-	-	-	-	-	-	248	-	45	-	-	18
Management/admin.	9,759	7,636	606	479	127	-	-	17	946	-	518	18	18	-
Of R & D	3,875	2,774	215	197	18	-	-	17	568	-	283	-	18	-
Of other than R & D	5,884	4,862	391	283	109	-	-	-	378	-	235	18	-	-
Teaching	2,440	65	2,248	1,787	461	-	-	18	109	-	-	-	-	-
Consulting	3,482	3,252	-	-	-	-	-	-	47	-	70	21	18	73
Production/inspect.	3,295	2,559	-	-	-	-	-	-	375	-	308	53	-	-
Rpt/stat/comp appl.	1,504	1,067	36	36	-	-	-	-	288	-	101	-	-	11
Other	334	319	-	-	-	-	-	-	15	-	-	-	-	-
Not reported	825	347	-	-	-	-	-	18	136	-	18	-	-	305
Oceanographers	**1,649**	**353**	**526**	**517**	**9**	**-**	**-**	**46**	**671**	**36**	**-**	**-**	**-**	**18**
Research and devel.	1,019	266	353	353	-	-	-	42	322	36	-	-	-	-
Basic research	380	-	281	281	-	-	-	42	57	-	-	-	-	-
Applied research	441	131	72	72	-	-	-	-	219	18	-	-	-	-
Development/design	198	135	-	-	-	-	-	-	45	18	-	-	-	-
Management/admin.	385	76	109	109	-	-	-	-	200	-	-	-	-	-
Of R & D	215	52	-	-	-	-	-	-	163	-	-	-	-	-
Of other than R & D	169	24	109	109	-	-	-	-	36	-	-	-	-	-
Teaching	46	-	46	36	9	-	-	-	-	-	-	-	-	-
Consulting	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	95	-	18	18	-	-	-	-	77	-	-	-	-	-
Rpt/stat/comp appl.	65	11	-	-	-	-	-	-	54	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	40	-	-	-	-	-	-	4	18	-	-	-	-	18

See Footnotes at end of Table

Table B-15. Number of Employed Scientists and Engineers by Field, Primary Work Activity, and Type of Employer: 1982—continued

Field and Primary Work Activity	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Atmospheric scientists	4,887	1,238	865	847	18	-	-	209	2,216	115	109	70	36	58
Research and devel.	2,074	287	692	692	-	-	-	64	885	52	36	-	-	58
Basic research	1,079	67	489	489	-	-	-	35	393	18	18	-	-	58
Applied research	834	168	185	185	-	-	-	29	400	34	18	-	-	-
Development/design	161	52	18	18	-	-	-	-	91	-	-	-	-	-
Management/admin.	937	480	11	11	-	-	-	18	337	-	36	18	36	-
Of R & D	420	236	11	11	-	-	-	18	138	-	18	-	-	-
Of other than R & D	516	244	-	-	-	-	-	-	200	-	18	18	36	-
Teaching	215	-	163	145	18	-	-	-	34	18	-	-	-	-
Consulting	215	187	-	-	-	-	-	-	18	-	-	-	-	-
Production/inspect.	453	119	-	-	-	-	-	18	297	-	-	18	-	-
Rpt/stat/comp appl.	880	128	-	-	-	-	-	109	539	45	36	34	-	-
Other	36	18	-	-	-	-	-	-	18	-	-	-	-	-
Not reported	88	-	-	-	-	-	-	-	88	-	-	-	-	-
Engineers	1,069,872	843,962	32,149	27,408	4,070	872	2,066	12,258	70,788	1,910	25,882	21,024	4,036	38,829
Research and devel.	331,776	296,807	7,306	7,141	154	10	238	4,983	21,990	331	4,800	3,518	1,259	754
Basic research	4,883	2,570	1,186	1,186	-	-	8	148	741	12	10	18	-	-
Applied research	34,333	21,318	3,717	3,717	-	-	68	2,107	5,564	34	641	359	451	86
Development/design	292,750	262,719	2,403	2,239	154	10	162	2,727	15,686	286	4,149	3,140	808	980
Management/admin.	332,074	271,525	5,551	4,724	521	308	692	4,920	28,060	979	9,711	8,881	800	898
Of R & D	107,257	87,811	2,053	1,915	127	10	60	2,932	11,786	322	920	913	280	170
Of other than R & D	224,817	183,714	3,498	2,808	394	298	632	1,988	16,275	656	8,791	7,968	568	726
Teaching	20,208	3,137	16,481	13,521	2,926	34	-	13	337	10	42	10	68	109
Consulting	59,154	56,701	181	129	52	-	177	288	1,191	34	524	550	236	273
Production/inspect.	169,814	138,930	1,200	921	70	208	805	1,005	12,986	427	309	6,026	777	586
Rpt/stat/comp appl.	40,508	31,476	316	228	8	80	214	561	4,383	80	248	911	264	93
Other	36,070	34,298	114	46	34	34	62	102	419	-	282	295	328	192
Not reported	61,217	22,279	1,000	697	304	-	68	385	1,422	68	986	829	244	33,926
Aeronautical / Astronautical	46,867	34,919	1,706	1,672	34	-	-	570	7,152	34	34	211	102	1,291
Research and devel.	20,250	16,500	686	686	-	-	-	322	2,599	-	34	68	-	34
Basic research	362	197	-	-	-	-	-	34	130	-	-	-	-	-
Applied research	3,637	1,816	555	555	-	-	-	97	1,169	-	-	-	-	-
Development/design	16,251	14,486	130	130	-	-	-	190	1,300	-	34	68	-	34
Management/admin.	14,956	11,323	356	356	-	-	-	170	2,862	34	-	143	34	34
Of R & D	9,513	7,308	139	139	-	-	-	170	1,755	-	-	109	-	34
Of other than R & D	5,442	4,016	218	218	-	-	-	-	1,107	34	-	34	34	-
Teaching	625	104	521	521	-	-	-	-	-	-	-	-	-	-
Consulting	608	608	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	4,186	3,240	-	-	-	-	-	-	905	-	-	-	34	-
Rpt/stat/comp appl.	2,563	1,913	-	-	-	-	-	78	530	-	-	-	34	8
Other	391	324	-	-	-	-	-	-	68	-	-	-	-	-
Not reported	2,425	880	143	109	34	-	-	-	188	-	-	-	-	1,205
Chemical	61,277	54,945	1,906	1,671	234	-	-	905	1,486	52	296	196	86	1,430
Research and devel.	21,754	19,953	584	584	-	-	-	250	845	18	34	18	52	-
Basic research	159	140	18	18	-	-	-	-	-	-	-	-	-	-
Applied research	2,732	1,709	388	388	-	-	-	197	386	-	34	18	-	-
Development/design	18,863	18,104	178	178	-	-	-	52	459	18	-	-	52	-
Management/admin.	22,268	20,583	143	34	109	-	-	605	399	-	244	177	-	117
Of R & D	7,357	6,354	-	-	-	-	-	571	256	-	143	34	-	-
Of other than R & D	14,910	14,228	143	34	109	-	-	34	144	-	102	143	-	117
Teaching	972	12	960	944	17	-	-	-	-	-	-	-	-	-
Consulting	1,457	1,380	-	-	-	-	-	42	34	-	-	-	-	-
Production/inspect.	9,399	9,204	-	-	-	-	-	8	111	34	8	-	34	-
Rpt/stat/comp appl.	1,884	1,799	-	-	-	-	-	-	42	-	8	-	-	34
Other	983	983	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	2,580	1,030	218	109	109	-	-	-	34	-	-	-	-	1,279
Civil	148,965	98,486	3,792	3,397	266	129	102	841	13,388	353	17,783	13,601	788	5,112
Research and devel.	25,129	16,219	491	481	-	10	-	256	2,467	34	3,330	2,086	145	102
Basic research	265	252	13	13	-	-	-	-	-	-	-	-	-	-
Applied research	2,064	723	459	459	-	-	-	58	332	-	267	255	-	-
Development/design	22,766	15,243	19	8	-	10	-	198	2,135	34	3,063	1,831	145	102
Management/admin.	52,154	31,903	873	754	-	119	68	339	5,890	319	6,5[illegible]	5,879	278	42
Of R & D	6,316	4,122	360	360	-	-	-	34	642	-	592	532	34	-
Of other than R & D	45,839	27,781	513	394	-	119	68	305	5,247	319	5,971	5,348	244	42
Teaching	2,353	167	2,035	1,806	229	-	-	-	34	-	8	-	-	109
Consulting	22,180	20,927	36	18	18	-	-	-	386	-	360	345	123	-
Production/inspect.	27,857	15,207	171	153	18	-	34	144	3,082	-	5,156	3,832	154	86
Rpt/stat/comp appl.	5,629	2,217	42	42	-	-	-	34	1,[illegible]	-	1,541	563	34	34
Other	1,950	1,503	-	-	-	-	-	34	43	-	79	244	-	46
Not reported	8,703	2,312	143	143	-	-	-	34	191	-	726	553	34	4,712
Electrical / Electronic	345,781	209,389	7,511	6,482	975	44	273	4,918	20,980	503	1,000	1,821	814	8,482
Research and devel.	100,718	86,020	2,360	2,308	52	-	42	1,844	8,818	133	351	555	433	361
Basic research	1,680	740	514	514	-	-	8	78	318	12	10	-	-	-
Applied research	9,741	6,106	964	964	-	-	34	816	1,816	-	34	-	119	51
Development/design	89,296	79,174	882	830	52	-	-	950	6,684	122	307	555	313	310
Management/admin.	73,051	62,080	1,131	1,079	52	-	177	1,834	6,799	154	317	600	34	145
Of R & D	35,530	30,028	381	363	18	-	-	1,012	3,873	136	34	34	-	34
Of other than R & D	37,521	32,033	751	717	34	-	177	822	2,926	18	283	566	34	111
Teaching	4,678	798	3,587	2,751	837	-	-	13	236	10	-	-	34	-
Consulting	8,246	7,725	34	-	34	-	-	86	282	-	-	68	52	-
Production/inspect.	33,994	28,565	252	208	-	44	44	472	3,454	205	264	510	209	18
Rpt/stat/comp appl.	7,693	6,528	34	34	-	-	-	34	993	-	34	18	52	-
Other	3,633	3,518	-	-	-	-	10	34	52	-	-	18	-	-
Not reported	13,769	5,145	112	112	-	-	-	102	357	-	34	52	-	7,958

See Footnotes at end of Table

Table B-15. Number of Employed Scientists and Engineers by Field, Primary Work Activity, and Type of Employer: 1982—continued

Field and Primary Work Activity	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Industrial	**67,937**	**60,654**	**1,171**	**1,026**	**145**	-	**435**	**397**	**2,437**	**52**	**162**	**504**	**71**	**2,055**
Research and devel.	12,796	12,420	10	10	-	-	8	68	211	10	-	34	-	34
Basic research	34	34	-	-	-	-	-	-	-	-	-	-	-	-
Applied research	459	449	-	-	-	-	-	-	10	-	-	-	-	-
Development/design	12,302	11,937	10	10	-	-	8	68	201	10	-	34	-	34
Management/admin.	24,410	22,692	34	34	-	-	143	143	1,063	-	42	218	-	76
Of R & D	3,335	3,013	-	-	-	-	-	34	146	-	-	109	-	34
Of other than R & D	21,075	19,679	34	34	-	-	143	109	917	-	42	109	-	42
Teaching	1,425	422	1,004	877	127	-	-	-	-	-	-	-	-	-
Consulting	2,248	1,962	-	-	-	-	143	-	-	-	34	109	-	-
Production/inspect.	17,005	16,006	68	68	-	-	13	-	665	34	18	110	3	68
Rpt/stat/comp appl.	4,649	4,155	42	34	8	-	42	-	266	8	68	34	34	-
Other	1,721	1,432	-	-	-	-	18	34	136	-	-	-	34	68
Not reported	3,684	1,565	13	3	10	-	68	153	76	-	-	-	-	1,809
Materials	**22,886**	**19,181**	**1,670**	**1,652**	**18**	-	-	**214**	**1,220**	-	**71**	**34**	**127**	**369**
Research and devel.	7,831	6,249	743	743	-	-	-	136	550	-	3	-	109	42
Basic research	420	68	218	218	-	-	-	-	135	-	-	-	-	-
Applied research	2,162	1,509	282	282	-	-	-	102	178	-	3	-	100	-
Development/design	5,248	4,672	263	263	-	-	-	34	237	-	-	-	-	42
Management/admin.	7,791	7,064	252	252	-	-	-	18	424	-	34	-	-	-
Of R & D	3,727	3,143	143	143	-	-	-	18	424	-	-	-	-	-
Of other than R & D	4,064	3,921	109	109	-	-	-	-	-	-	34	-	-	-
Teaching	633	34	599	599	-	-	-	-	-	-	-	-	-	-
Consulting	953	832	58	58	-	-	-	-	44	-	-	-	18	-
Production/inspect.	4,168	3,914	18	-	18	-	-	34	135	-	34	34	-	-
Rpt/stat/comp appl.	274	241	-	-	-	-	-	-	34	-	-	-	-	-
Other	342	342	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	893	506	-	-	-	-	-	27	34	-	-	-	-	326
Mechanical	**206,943**	**179,611**	**7,136**	**5,210**	**1,671**	**255**	**409**	**1,906**	**9,587**	**170**	**652**	**1,152**	**424**	**5,896**
Research and devel.	83,225	77,043	924	823	102	-	-	717	3,725	68	197	277	240	34
Basic research	665	383	128	128	-	-	-	36	120	-	-	18	-	-
Applied research	5,412	3,885	364	364	-	-	-	248	744	34	58	-	44	34
Development/design	77,128	72,775	432	330	102	-	-	433	2,861	34	138	259	196	-
Management/admin.	68,035	61,141	1,137	766	218	153	86	985	3,735	34	256	448	98	136
Of R & D	21,504	18,875	280	269	-	10	18	435	1,719	34	18	44	46	34
Of other than R & D	46,531	42,265	857	497	218	143	68	530	2,016	-	237	404	52	102
Teaching	4,669	512	4,124	2,923	1,167	34	-	-	34	-	-	-	-	-
Consulting	7,266	6,978	52	52	-	-	-	54	120	-	34	18	-	10
Production/inspect.	27,248	24,078	492	390	34	68	289	136	1,483	-	114	307	86	263
Rpt/stat/comp appl.	3,487	2,915	109	109	-	-	-	34	328	-	-	102	-	-
Other	2,835	2,703	46	12	34	-	34	-	34	-	18	-	-	-
Not reported	10,178	4,241	253	136	117	-	-	-	128	68	34	-	-	5,454
Mining	**7,334**	**6,249**	**311**	**303**	**8**	-	-	**109**	**307**	-	**158**	**52**	**34**	**114**
Research and devel.	1,435	1,202	52	52	-	-	-	-	93	-	86	-	-	-
Basic research	46	34	-	-	-	-	-	-	12	-	-	-	-	-
Applied research	356	171	52	52	-	-	-	-	63	-	70	-	-	-
Development/design	1,033	997	-	-	-	-	-	-	18	-	16	-	-	-
Management/admin.	2,253	2,133	-	-	-	-	-	-	68	-	-	18	-	34
Of R & D	530	530	-	-	-	-	-	-	-	-	-	-	-	-
Of other than R & D	1,723	1,603	-	-	-	-	-	-	68	-	-	18	-	34
Teaching	260	-	260	252	8	-	-	-	-	-	-	-	-	-
Consulting	744	664	-	-	-	-	-	-	34	-	-	-	34	12
Production/inspect.	1,766	1,638	-	-	-	-	-	-	42	-	52	34	-	-
Rpt/stat/comp appl.	641	444	-	-	-	-	-	109	70	-	18	-	-	-
Other	60	60	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	174	107	-	-	-	-	-	-	-	-	-	-	-	68
Nuclear	**9,657**	**6,771**	**203**	**203**	-	-	**34**	**207**	**1,725**	-	**18**	**109**	**177**	**414**
Research and devel.	2,677	2,163	68	68	-	-	34	96	282	-	-	-	34	-
Basic research	78	78	-	-	-	-	-	-	-	-	-	-	-	-
Applied research	535	293	-	-	-	-	-	96	112	-	-	-	34	-
Development/design	2,064	1,793	68	68	-	-	34	-	170	-	-	-	-	-
Management/admin.	3,587	2,375	136	136	-	-	-	111	857	-	-	109	-	-
Of R & D	1,352	825	136	136	-	-	-	52	340	-	-	-	-	-
Of other than R & D	2,235	1,550	-	-	-	-	-	58	517	-	-	109	-	-
Teaching	151	151	-	-	-	-	-	-	-	-	-	-	-	-
Consulting	513	513	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	1,513	1,028	-	-	-	-	-	-	432	-	18	-	34	-
Rpt/stat/comp appl.	379	293	-	-	-	-	-	-	86	-	-	-	-	-
Other	218	109	-	-	-	-	-	-	-	-	-	-	109	-
Not reported	620	138	-	-	-	-	-	-	68	-	-	-	-	414
Petroleum	**14,186**	**12,252**	**66**	**66**	-	-	-	**109**	**379**	-	**211**	-	**143**	**1,026**
Research and devel.	2,449	2,403	12	12	-	-	-	-	-	-	-	-	-	34
Basic research	119	119	-	-	-	-	-	-	-	-	-	-	-	-
Applied research	543	531	12	12	-	-	-	-	-	-	-	-	-	-
Development/design	1,787	1,753	-	-	-	-	-	-	-	-	-	-	-	34
Management/admin.	4,395	4,090	-	-	-	-	-	109	162	-	34	-	-	-
Of R & D	769	534	-	-	-	-	-	109	126	-	-	-	-	-
Of other than R & D	3,626	3,556	-	-	-	-	-	-	36	-	34	-	-	-
Teaching	122	68	54	54	-	-	-	-	-	-	-	-	-	-
Consulting	1,242	1,133	-	-	-	-	-	-	-	-	-	-	-	109
Production/inspect.	3,403	3,205	-	-	-	-	-	-	130	-	68	-	-	-
Rpt/stat/comp appl.	511	350	-	-	-	-	-	-	53	-	109	-	-	-
Other	478	335	-	-	-	-	-	-	-	-	-	-	143	-
Not reported	1,586	668	-	-	-	-	-	-	34	-	-	-	-	883

See Footnotes at end of Table

Table B-15. Number of Employed Scientists and Engineers by Field, Primary Work Activity, and Type of Employer: 1982—continued

Field and Primary Work Activity	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Other	222,930	178,557	6,677	5,714	719	244	883	2,881	12,240	746	5,538	3,446	1,282	10,869
Research and devel.	53,511	46,425	1,376	1,376	-	-	154	1,494	2,391	68	784	480	247	114
Basic research	845	524	295	295	-	-	-	-	26	-	-	-	-	-
Applied research	6,660	4,125	660	660	-	-	34	691	744	-	174	86	145	-
Development/design	46,006	41,776	421	421	-	-	120	803	1,620	68	589	394	102	114
Management/admin.	59,175	46,161	1,489	1,313	143	34	219	827	5,801	438	2,221	1,290	416	312
Of R & D	17,322	13,079	615	506	109	-	42	497	2,505	153	134	52	211	34
Of other than R & D	41,852	33,082	874	807	34	34	177	329	3,296	285	2,087	1,238	205	278
Teaching	4,319	871	3,336	2,794	542	-	-	-	34	-	34	10	34	-
Consulting	13,690	12,978	-	-	-	-	34	106	289	34	96	10	9	143
Production/inspect.	39,323	32,834	198	102	-	96	224	212	2,528	154	1,576	1,203	224	170
Rpt/stat/comp appl.	12,798	10,623	89	9	-	80	172	273	798	52	470	195	110	17
Other	23,459	22,967	68	34	-	34	-	-	86	-	164	34	42	78
Not reported	16,646	5,678	120	86	34	-	-	70	313	-	202	224	211	9,628
Life scientists	137,483	46,886	52,329	47,134	4,719	467	3,640	3,827	18,232	367	9,124	2,028	389	1,509
Research and devel.	42,501	9,245	20,630	20,611	19	-	881	2,076	6,340	105	2,228	472	247	276
Basic research	19,659	859	14,343	14,343	-	-	480	1,346	2,033	54	439	21	-	103
Applied research	17,730	5,159	6,102	6,093	9	-	311	678	3,299	42	1,504	247	216	173
Development/design	5,111	3,226	185	175	10	-	110	53	1,008	10	285	204	31	-
Management/admin.	43,899	22,784	5,714	4,627	853	234	1,012	1,371	7,403	218	4,356	714	48	278
Of R & D	12,203	6,338	1,690	1,550	140	-	183	398	1,763	109	1,382	183	27	130
Of other than R & D	31,696	16,446	4,024	3,076	714	234	829	974	5,640	109	2,974	531	21	148
Teaching	24,122	121	23,450	19,501	3,716	233	289	41	75	-	96	31	-	20
Consulting	3,172	2,589	523	523	-	-	34	21	425	-	347	-	21	31
Production/inspect.	11,209	[illegible]	371	371	-	-	228	189	2,167	-	929	542	22	-
Rpt/stat/comp appl.	3,282	831	507	507	-	-	9	30	1,176	44	808	35	21	21
Other	5,580	[illegible]	553	553	-	-	1,106	190	243	-	446	103	-	84
Not reported	2,025	729	571	441	130	-	90	-	404	-	115	130	-	880
Biologists	86,386	27,182	31,226	26,989	4,141	106	1,454	2,241	14,131	193	6,197	1,478	213	982
Research and devel.	23,993	5,339	10,603	10,593	10	-	344	1,252	4,207	41	1,574	376	185	72
Basic research	11,404	586	8,313	8,303	-	-	220	786	1,138	11	307	21	-	29
Applied research	9,643	3,136	2,270	2,270	-	-	103	413	2,193	20	1,119	161	185	43
Development/design	2,946	1,615	29	20	10	-	21	53	876	10	148	194	-	-
Management/admin.	28,687	13,873	3,199	2,476	723	-	610	848	6,479	109	2,786	488	18	257
Of R & D	7,498	3,898	980	840	140	-	-	331	1,394	-	685	74	18	109
Of other than R & D	21,179	9,975	2,219	1,636	583	-	610	517	5,085	109	2,101	414	-	148
Teaching	16,182	121	15,884	12,502	3,278	105	19	31	-	-	86	31	-	10
Consulting	3,171	2,119	270	270	-	-	10	21	372	-	347	-	-	31
Production/inspect.	6,530	3,273	132	132	-	-	160	49	1,721	-	711	475	10	-
Rpt/stat/comp appl.	2,593	771	367	367	-	-	-	30	1,008	44	327	25	-	21
Other	2,342	1,249	270	270	-	-	254	10	175	-	303	60	-	21
Not reported	1,826	436	510	380	130	-	58	-	169	-	62	21	-	570
Biochemists	9,636	2,625	5,210	5,192	19	-	408	393	738	-	112	-	-	62
Research and devel.	5,877	1,029	3,566	3,556	9	-	209	393	557	-	71	-	-	53
Basic research	4,501	198	3,276	3,276	-	-	143	288	405	-	61	-	-	43
Applied research	1,090	595	290	280	9	-	19	105	62	-	10	-	-	10
Development/design	286	236	-	-	-	-	48	-	-	-	-	-	-	-
Management/admin.	1,517	1,157	170	170	-	-	90	-	79	-	20	-	-	-
Of R & D	869	734	41	41	-	-	32	-	53	-	9	-	-	-
Of other than R & D	647	423	130	130	-	-	58	-	26	-	10	-	-	-
Teaching	1,453	-	1,453	1,443	9	-	-	-	-	-	-	-	-	-
Consulting	10	10	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	301	153	-	-	-	-	58	-	66	-	21	-	-	-
Rpt/stat/comp appl.	40	10		-	-	-	9	-	21	-	-	-	-	-
Other	367	236	-	-	-	-	131	-	-	-	-	-	-	-
Not reported	62	31	21	21	-	-	-	-	-	-	-	-	-	10
Agricultural scientists	27,836	12,963	8,418	7,643	540	236	-	602	2,520	-	2,967	348	125	383
Research and devel.	7,342	1,974	3,356	3,356	-	-	-	31	1,188	-	536	64	61	130
Basic research	863	65	527	527	-	-	-	-	199	-	62	-	-	10
Applied research	5,115	982	2,674	2,674	-	-	-	31	856	-	356	64	31	120
Development/design	1,364	927	155	155	-	-	-	-	132	-	119	-	31	-
Management/admin.	10,316	6,083	1,724	1,477	130	117	-	306	564	-	1,478	109	31	21
Of R & D	2,585	1,027	584	584	-	-	-	67	153	-	536	109	9	21
Of other than R & D	7,731	5,057	1,161	[illegible]	130	117	-	239	411	-	942	-	21	-
Teaching	2,741	-	2,679	2,150	410	119	-	9	53	-	-	-	-	-
Consulting	469	430	195	195	-	-	-	-	43	-	-	-	21	-
Production/inspect.	4,001	3,074	239	[illegible]	-	-	-	140	316	-	165	56	12	-
Rpt/stat/comp appl.	525	10	109	109	-	-	-	-	116	-	290	10	-	-
Other	1,382	1,121	86	86	-	-	-	115	15	-	55	-	-	-
Not reported	830	261	31	31	-	-	-	-	225	-	53	109	-	152
Medical scientists	14,715	3,137	7,488	7,310	29	127	1,886	882	865	173	248	283	21	232
Research and devel.	5,288	902	3,105	3,105	-	-	328	400	387	64	48	32	-	21
Basic research	2,890	10	2,237	2,237	-	-	98	272	199	43	10	-	-	21
Applied research	1,882	446	868	868	-	-	189	128	188	21	19	21	-	-
Development/design	516	446	-	-	-	-	41	-	-	-	19	10	-	-
Management/admin.	3,369	1,670	620	504	-	117	312	218	281	109	72	117	-	-
Of R & D	1,200	679	105	105	-	-	152	-	163	109	52	-	-	-
Of other than R & D	2,139	991	515	398	-	117	160	218	119	-	20	117	-	-
Teaching	3,745	-	3,434	3,405	20	10	270	-	21	-	10	-	-	10
Consulting	102	10	58	58	-	-	24	-	10	-	-	-	-	-
Production/inspect.	368	254	-	-	-	-	10	-	62	-	31	12	-	-
Rpt/stat/comp appl.	124	41	31	31	-	-	-	-	31	-	-	-	21	-
Other	1,479	260	198	198	-	-	721	74	53	-	86	43	-	43
Not reported	208	-	9	9	-	-	31	-	10	-	-	-	-	158

See Footnotes at end of Table

Table B-15. Number of Employed Scientists and Engineers by Field, Primary Work Activity, and Type of Employer: 1982—continued

Field and Primary Work Activity	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Psychologists	84,140	23,222	36,772	21,486	3,240	12,045	10,964	4,919	1,527	270	2,743	1,813	456	1,464
Research and devel.	6,725	1,388	3,611	3,430	-	180	394	276	594	64	197	8	64	149
Basic research	2,557	64	2,229	2,229	-	-	73	-	137	-	-	-	-	54
Applied research	2,910	810	1,137	1,092	-	45	139	276	389	64	-	-	-	95
Development/design	1,257	494	245	109	-	136	182	-	68	-	197	8	64	-
Management/admin.	17,919	8,536	4,840	3,140	954	746	1,415	1,267	303	58	824	427	66	161
Of R & D	3,576	1,511	1,208	891	117	201	371	82	257	-	133	14	-	-
Of other than R & D	14,343	7,027	3,632	2,249	837	545	1,044	1,185	46	58	691	413	66	161
Teaching	19,197	713	16,305	12,995	2,042	1,269	1,134	400	11	20	267	64	218	66
Consulting	4,555	2,101	969	241	9	719	807	374	145	-	85	64	-	9
Production/inspect.	2,778	1,414	760	117	-	643	191	178	19	-	31	185	-	-
Rpt/stat/comp appl.	1,212	241	409	355	-	54	68	245	32	-	203	14	-	-
Other	28,987	8,091	9,342	958	126	8,258	6,526	2,115	423	126	1,136	986	106	131
Not reported	2,767	756	535	250	109	176	429	64	-	-	-	65	-	918
Social scientists	116,109	44,702	41,261	36,769	4,136	456	3,027	7,578	8,226	36	4,203	3,287	1,532	2,168
Research and devel.	14,548	2,963	5,788	5,788	-	-	283	1,126	2,654	12	658	441	411	12
Basic research	3,677	333	2,666	2,666	-	-	76	228	262	-	73	27	12	-
Applied research	6,518	1,630	3,096	3,096	-	-	208	855	1,801	12	497	118	291	12
Development/design	2,354	1,000	27	27	-	-	-	44	591	-	288	297	108	-
Management/admin.	43,641	26,727	5,710	4,623	1,033	54	1,083	3,676	2,613	12	1,605	1,347	400	487
Of R & D	7,865	3,708	1,369	1,001	368	-	124	1,018	1,099	-	204	196	149	27
Of other than R & D	35,747	23,019	4,341	3,622	665	54	939	2,658	1,514	12	1,400	1,151	251	461
Teaching	31,096	583	28,400	25,180	3,067	152	406	801	24	-	312	292	145	124
Consulting	3,029	2,575	24	24	-	-	34	54	63	-	190	15	73	-
Production/inspect.	4,634	3,592	11	11	-	-	269	154	208	-	65	237	98	-
Rpt/stat/comp appl.	8,753	3,341	722	686	36	-	35	608	2,319	12	960	387	346	24
Other	6,834	3,894	369	135	-	235	863	989	197	-	203	293	12	14
Not reported	3,566	1,016	337	322	-	15	54	171	148	-	11	275	48	1,507
Economists	46,946	23,332	13,319	11,941	1,379	-	151	1,352	5,285	12	835	160	1,279	1,241
Research and devel.	6,561	1,719	1,933	1,933	-	-	-	444	1,827	12	252	66	327	-
Basic research	1,246	279	637	637	-	-	-	139	179	-	-	12	-	-
Applied research	4,460	1,011	1,281	1,281	-	-	-	293	1,363	12	240	42	228	-
Development/design	844	428	15	15	-	-	-	12	266	-	12	12	99	-
Management/admin.	17,119	13,433	1,049	1,049	-	-	129	447	1,443	-	191	11	377	38
Of R & D	2,928	1,673	98	98	-	-	-	312	560	-	122	11	126	27
Of other than R & D	14,191	11,760	951	951	-	-	129	136	883	-	69	-	251	12
Teaching	10,447	20	10,243	8,864	1,379	-	-	-	24	-	12	-	24	124
Consulting	1,844	1,679	12	12	-	-	-	24	42	-	-	15	73	-
Production/inspect.	1,976	1,731	-	-	-	-	-	-	134	-	12	-	98	-
Rpt/stat/comp appl.	5,596	2,599	58	58	-	-	12	422	1,749	-	357	68	320	12
Other	1,696	1,631	-	-	-	-	11	15	27	-	-	-	12	-
Not reported	1,707	520	24	24	-	-	-	-	39	-	11	-	48	1,066
Sociologists / anthropologists	22,989	7,540	10,901	9,757	990	153	378	1,643	814	-	875	207	184	453
Research and devel.	3,863	542	2,168	2,168	-	-	15	568	318	-	162	15	63	12
Basic research	1,597	54	1,309	1,309	-	-	-	77	66	-	63	15	12	-
Applied research	2,018	299	847	847	-	-	15	471	223	-	99	-	51	12
Development/design	248	189	12	12	-	-	-	20	27	-	-	-	-	-
Management/admin.	7,979	5,042	1,074	715	360	-	226	678	297	-	325	39	-	297
Of R & D	1,798	790	695	552	142	-	-	200	75	-	27	12	-	-
Of other than R & D	6,181	4,252	380	162	218	-	226	478	223	-	298	27	-	297
Teaching	7,776	184	7,185	6,416	630	138	126	148	-	-	-	12	121	-
Consulting	329	121	12	12	-	-	-	15	-	-	180	-	-	-
Production/inspect.	946	896	11	11	-	-	-	27	-	-	12	-	-	-
Rpt/stat/comp appl.	1,082	73	382	382	-	-	-	153	184	-	117	141	-	12
Other	467	351	12	12	-	-	11	-	15	-	79	-	-	-
Not reported	573	329	57	42	-	15	-	54	-	-	-	-	-	133
Other social scientists	46,142	13,809	17,141	15,072	1,767	303	2,478	4,582	2,127	24	2,494	2,921	70	474
Research and devel.	4,105	702	1,687	1,687	-	-	266	114	508	-	444	360	21	-
Basic research	833	-	719	719	-	-	76	12	15	-	11	-	-	-
Applied research	2,010	320	968	968	-	-	193	90	195	-	158	76	12	-
Development/design	1,262	382	-	-	-	-	-	12	298	-	276	285	9	-
Management/admin.	18,543	8,252	3,586	2,859	673	54	708	2,550	873	12	1,088	1,298	23	152
Of R & D	3,168	1,245	576	350	226	-	124	507	465	-	56	173	23	-
Of other than R & D	15,375	7,007	3,010	2,509	447	54	585	2,044	408	12	1,033	1,124	-	152
Teaching	12,873	368	10,972	9,900	1,058	14	280	653	-	-	300	280	-	-
Consulting	855	775	-	-	-	-	34	15	21	-	9	-	-	-
Production/inspect.	1,713	965	-	-	-	-	269	127	74	-	41	237	-	-
Rpt/stat/comp appl.	2,095	668	282	246	36	-	23	32	387	12	486	179	26	-
Other	4,672	1,912	357	123	-	235	842	974	156	-	124	293	-	14
Not reported	1,286	167	256	256	-	-	54	117	109	-	-	275	-	308

NOTE: Detail may not add to total due to rounding.

Source: National Science Foundation.

Table B-16. Number of Employed Scientists and Engineers by Field, Sex, Race, and Number of Years of Professional Experience: 1982

Field, Sex, and Race	Total	5 and fewer	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41 and over	Not reported
Total, all fields											
Sex	1,759,344	294,248	324,861	283,944	239,082	204,585	173,173	149,407	55,077	25,511	9,438
Male	1,598,067	247,112	276,392	253,876	224,427	195,797	167,143	146,351	53,217	24,515	9,237
Female	161,277	47,136	48,469	30,068	14,655	8,787	6,030	3,056	1,859	995	201
Race	1,759,344	294,248	324,861	283,944	239,082	204,585	173,173	149,407	55,077	25,511	9,438
White	1,606,064	263,296	289,147	253,[illegible]77	214,465	190,334	163,145	144,255	53,708	25,021	9,325
Black	38,346	7,380	10,206	7,173	4,703	3,761	3,060	1,304	586	183	32
Asian	86,997	17,342	20,253	17,5[illegible]	15,633	7,820	5,260	2,348	478	237	19
Other[1]	27,937	6,230	5,256	5,846	4,280	2,670	1,707	1,500	305	70	62
Physical scientists											
Sex	115,821	16,336	17,726	18,113	17,096	14,862	13,053	11,652	4,183	1,997	804
Male	104,673	13,767	14,899	16,401	15,654	14,074	12,217	11,240	3,805	1,864	754
Female	11,148	2,569	2,828	1,712	1,442	788	836	412	378	134	50
Race	115,821	16,336	17,726	18,113	17,096	14,862	13,053	11,652	4,183	1,997	804
White	104,202	14,410	15,126	15,798	15,364	13,825	11,796	11,001	4,080	1,997	804
Black	2,595	388	585	355	327	129	532	270	9	-	-
Asian	7,129	1,123	1,556	1,612	1,156	692	656	297	34	-	-
Other[1]	1,895	415	459	348	249	214	68	83	58	-	-
Chemists											
Sex	78,028	11,409	11,501	11,835	10,631	9,562	9,224	8,500	3,418	1,418	531
Male	68,872	9,343	9,215	10,352	9,293	9,017	8,566	8,250	3,040	1,301	497
Female	9,156	2,066	2,287	1,483	1,338	545	658	250	378	117	33
Race	78,028	11,409	11,501	11,835	10,631	9,562	9,224	8,500	3,418	1,418	531
White	69,177	10,092	9,410	9,929	9,451	8,748	8,185	8,087	3,325	1,418	531
Black	2,136	211	519	286	271	120	475	242	9	-	-
Asian	5,695	956	1,323	1,329	843	552	564	112	24	-	-
Other[1]	1,021	150	249	290	65	141	9	58	58	-	-
Physicists / astronomers											
Sex	25,802	2,903	4,212	4,480	5,111	3,585	2,624	1,846	512	477	72
Male	24,410	2,634	3,880	4,285	5,051	3,392	2,466	1,694	512	461	55
Female	1,392	269	332	195	60	192	159	152	-	17	17
Race	25,802	2,903	4,212	4,480	5,111	3,585	2,624	1,846	512	477	72
White	23,860	2,530	3,856	4,219	4,619	3,420	2,466	1,679	502	477	72
Black	330	178	47	48	37	-	20	-	-	-	-
Asian	1,081	93	156	159	295	140	60	167	10	-	-
Other[1]	531	102	153	34	159	24	58	-	-	-	-
Other physical scientists											
Sex	11,991	2,025	2,013	1,818	1,354	1,715	1,204	1,306	253	102	201
Male	11,390	1,791	1,804	1,784	1,310	1,665	1,185	1,296	253	102	201
Female	601	234	209	35	43	51	19	10	-	-	-
Race	11,991	2,025	2,013	1,818	1,354	1,715	1,204	1,306	253	102	201
White	11,165	1,789	1,860	1,651	1,293	1,657	1,124	1,235	253	102	201
Black	130	-	19	19	19	9	37	28	-	-	-
Asian	353	73	76	125	18	-	43	18	-	-	-
Other[1]	343	163	58	24	24	49	-	24	-	-	-
Mathematical scientists											
Sex	43,944	5,582	7,995	8,534	7,435	6,011	3,174	3,245	994	940	36
Male	35,893	3,884	6,217	6,599	6,261	5,630	2,678	2,901	883	805	36
Female	8,051	1,698	1,778	1,934	1,174	381	496	345	111	135	-
Race	43,944	5,582	7,995	8,534	7,435	6,011	3,174	3,245	994	940	36
White	39,450	4,533	7,320	7,857	6,649	5,271	2,706	3,193	944	940	36
Black	1,404	318	100	283	95	336	216	15	40	-	-
Asian	2,333	301	492	342	588	367	224	9	9	-	-
Other[1]	758	430	83	51	103	36	28	28	-	-	-
Mathematicians											
Sex	36,945	4,310	5,671	7,202	6,378	5,762	2,990	2,914	903	796	18
Male	30,900	3,211	4,480	5,660	5,482	5,441	2,513	2,587	847	661	18
Female	6,044	1,100	1,191	1,542	895	321	477	327	56	135	-
Race	36,945	4,310	5,671	7,202	6,378	5,762	2,990	2,914	903	796	18
White	33,282	3,544	5,213	6,645	5,692	5,065	2,551	2,904	854	796	18
Black	1,202	253	36	248	84	325	216	-	40	-	-
Asian	1,892	235	340	258	518	337	195	-	9	-	-
Other[1]	568	278	83	51	84	36	28	9	-	-	-
Statisticians											
Sex	7,000	1,271	2,324	1,331	1,057	249	183	332	90	144	18
Male	4,993	673	1,737	939	778	189	165	314	36	144	18
Female	2,007	598	587	392	279	60	18	18	55	-	-
Race	7,000	1,271	2,324	1,331	1,057	249	183	332	90	144	18
White	6,168	969	2,107	1,212	957	207	154	289	90	144	18
Black	202	65	65	35	12	12	-	15	-	-	-
Asian	440	86	152	84	70	30	29	9	-	-	-
Other[1]	189	152	-	-	19	-	-	19	-	-	-
Computer specialists											
Sex	168,578	32,222	49,721	38,856	23,408	13,458	7,121	2,882	641	66	202
Male	132,139	21,983	36,461	30,596	20,660	12,120	6,733	2,698	641	46	202
Female	36,438	10,239	13,261	8,260	2,748	1,338	388	184	-	20	-
Race	168,578	32,222	49,721	38,856	23,408	13,458	7,121	2,882	641	66	202
White	152,161	28,080	43,835	35,303	21,610	12,911	6,632	2,823	629	66	181
Black	5,604	1,065	1,993	1,233	683	251	288	49	11	-	11
Asian	7,944	2,188	3,556	1,312	649	178	49	-	-	-	10
Other[1]	2,869	889	336	917	466	119	153	10	-	-	-

See Footnotes at end of Table

Table B-16. Number of Employed Scientists and Engineers by Field, Sex, Race, and Number of Years of Professional Experience: 1982—continued

Field, Sex, and Race	Total	5 and fewer	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41 and over	Not reported
Environmental scientists											
Sex	42,407	8,557	9,456	4,992	3,108	4,664	5,288	4,715	869	395	363
Male	39,341	7,214	8,472	4,643	2,902	4,621	5,220	4,692	834	381	363
Female	3,066	1,343	984	348	206	43	68	24	35	14	-
Race	42,407	8,557	9,456	4,992	3,108	4,664	5,288	4,715	869	395	363
White	40,772	8,319	8,778	4,826	3,006	4,350	5,186	4,698	851	395	363
Black	325	46	209	3	-	55	12	-	-	-	-
Asian	900	124	294	132	75	220	45	9	-	-	-
Other[1]	410	68	175	30	27	39	45	9	18	-	-
Earth scientists											
Sex	35,850	7,312	7,963	3,812	2,641	3,895	4,810	4,174	559	323	363
Male	33,280	6,050	7,186	3,613	2,463	3,851	4,769	4,153	524	309	363
Female	2,571	1,261	777	199	179	43	41	21	35	14	-
Race	35,850	7,312	7,963	3,812	2,641	3,895	4,810	4,174	559	323	363
White	34,668	7,144	7,337	3,716	2,558	3,804	4,708	4,156	559	323	363
Black	246	23	176	3	-	34	12	-	-	-	-
Asian	616	95	294	80	57	36	45	9	-	-	-
Other[1]	318	49	156	12	27	21	45	9	-	-	-
Oceanographers											
Sex	1,649	262	390	325	163	218	145	109	36	-	-
Male	1,466	252	349	194	163	218	145	109	36	-	-
Female	183	11	41	131	-	-	-	-	-	-	-
Race	1,649	262	390	325	163	218	145	109	36	-	-
White	1,535	244	378	298	163	179	145	109	18	-	-
Black	33	-	12	-	-	21	-	-	-	-	-
Asian	9	-	-	9	-	-	-	-	-	-	-
Other[1]	73	18	-	18	-	18	-	-	18	-	-
Atmospheric scientists											
Sex	4,907	983	1,103	854	303	551	333	433	274	72	-
Male	4,595	912	938	836	276	551	306	430	274	72	-
Female	312	71	165	19	27	-	27	3	-	-	-
Race	4,907	983	1,103	854	303	551	333	433	274	72	-
White	4,567	931	1,083	811	285	367	333	433	274	72	-
Black	45	23	21	-	-	-	-	-	-	-	-
Asian	275	29	-	43	18	184	-	-	-	-	-
Other[1]	20	-	20	-	-	-	-	-	-	-	-
Engineers											
Sex	1,050,872	171,792	161,454	150,934	144,353	132,808	116,592	108,455	40,572	17,803	6,110
Male	1,027,135	160,653	155,453	148,435	142,982	131,894	115,746	108,002	40,313	17,555	6,102
Female	23,737	11,139	6,001	2,499	1,371	914	845	453	259	248	8
Race	1,050,872	171,792	161,454	150,934	144,353	132,808	116,592	108,455	40,572	17,803	6,110
White	955,972	152,928	141,036	132,557	128,028	123,098	110,319	104,898	39,738	17,332	6,037
Black	17,697	4,112	4,558	3,092	2,016	1,826	994	592	313	172	20
Asian	59,445	11,067	12,435	11,951	11,540	5,870	4,006	1,932	416	228	-
Other[1]	17,758	3,683	3,425	3,334	2,769	2,013	1,272	1,033	105	70	52
Aeronautical / Astronautical											
Sex	46,007	5,842	3,317	4,279	6,170	7,365	8,406	6,158	2,949	1,351	170
Male	45,158	5,467	3,170	4,183	6,109	7,315	8,363	6,123	2,915	1,343	170
Female	849	376	147	95	61	50	42	35	34	8	-
Race	46,007	5,842	3,317	4,279	6,170	7,365	8,406	6,158	2,949	1,351	170
White	43,070	5,439	2,837	3,850	5,670	6,926	7,981	5,942	2,939	1,315	170
Black	639	92	108	114	147	51	75	52	-	-	-
Asian	1,790	249	302	285	319	233	246	128	9	18	-
Other[1]	508	[illegible]	70	30	34	154	104	36	-	18	-
Chemical											
Sex	61,277	10,563	9,412	8,904	7,731	7,035	6,420	6,359	3,471	1,101	281
Male	58,849	9,261	8,609	8,741	7,701	6,972	6,378	6,342	3,463	1,101	281
Female	2,428	1,301	803	164	30	63	42	17	8	-	-
Race	61,277	10,563	9,412	8,904	7,731	7,035	6,420	6,359	3,471	1,101	281
White	54,906	9,298	7,959	7,159	6,777	6,413	6,217	6,258	3,453	1,101	281
Black	485	259	143	39	10	30	-	3	-	-	-
Asian	4,955	865	1,186	1,473	765	432	120	97	18	-	-
Other[1]	931	150	124	234	179	161	83	-	-	-	-
Civil											
Sex	145,955	23,218	23,260	21,330	19,414	17,269	17,196	14,296	5,949	2,327	1,697
Male	143,655	21,938	22,884	21,104	19,299	17,200	17,004	14,263	5,949	2,318	1,697
Female	2,301	1,280	376	226	115	69	192	33	-	9	-
Race	145,955	23,218	23,260	21,330	19,414	17,269	17,196	14,296	5,949	2,327	1,697
White	128,475	20,272	19,995	18,336	16,090	15,294	15,392	13,557	5,668	2,193	1,678
Black	2,128	473	395	314	378	228	184	143	14	-	-
Asian	12,186	1,809	2,046	2,080	2,544	1,510	1,525	339	233	100	-
Other[1]	3,166	663	825	600	402	237	95	257	34	34	18
Electrical / Electronic											
Sex	245,781	41,555	38,656	36,310	36,215	33,728	24,347	24,166	7,150	2,714	940
Male	242,350	39,924	37,999	35,794	35,922	33,603	24,205	24,131	7,135	2,698	940
Female	3,432	1,631	657	517	293	124	142	35	15	17	-
Race	245,781	41,555	38,656	36,310	36,215	33,728	24,347	24,166	7,150	2,714	940
White	220,133	35,972	33,405	31,116	31,897	31,245	22,811	23,228	6,871	2,660	930
Black	5,714	1,322	1,343	1,224	558	622	215	164	259	-	10
Asian	16,109	3,673	3,280	3,158	2,977	1,449	868	631	18	55	-
Other[1]	3,825	589	628	812	783	411	454	144	3	-	-

See Footnotes at end of Table

Table B-16. Number of Employed Scientists and Engineers by Field, Sex, Race, and Number of Years of Professional Experience: 1982—continued

Field, Sex, and Race	Total	5 and fewer	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41 and over	Not reported
Industrial											
Sex	67,937	11,463	11,275	10,971	10,059	8,717	6,344	5,903	2,274	788	143
Male	65,926	10,491	10,561	10,819	9,943	8,709	6,344	5,880	2,256	780	143
Female	2,011	972	715	152	116	8	-	23	18	8	-
Race	67,937	11,463	11,275	10,971	10,059	8,717	6,344	5,903	2,274	788	143
White	64,322	10,647	10,146	10,277	9,587	8,408	6,189	5,874	2,264	788	143
Black	1,061	297	323	141	154	75	51	10	10	-	-
Asian	1,947	360	583	492	275	182	36	18	-	-	-
Other[1]	607	158	223	62	43	52	68	-	-	-	-
Materials											
Sex	22,886	3,541	3,485	2,909	3,265	2,613	2,333	3,069	1,079	559	34
Male	22,321	3,239	3,375	2,880	3,224	2,579	2,290	3,061	1,079	559	34
Female	565	301	109	29	42	33	42	8	-	-	-
Race	22,886	3,541	3,485	2,909	3,265	2,613	2,333	3,069	1,079	559	34
White	20,653	2,721	2,884	2,623	2,930	2,444	2,284	3,025	1,060	549	34
Black	184	62	31	31	-	10	31	10	-	10	-
Asian	1,790	708	452	221	302	73	18	-	18	-	-
Other[1]	259	52	18	34	34	86	-	34	-	-	-
Mechanical											
Sex	206,943	30,041	28,227	27,774	28,562	26,703	25,478	25,217	8,741	4,684	1,516
Male	203,411	28,382	27,537	27,577	28,327	26,377	25,283	25,033	8,741	4,639	1,516
Female	3,532	1,660	690	197	235	326	195	184	-	45	-
Race	206,943	30,041	28,227	27,774	28,562	26,703	25,478	25,217	8,741	4,684	1,516
White	190,240	27,057	24,869	24,638	25,318	25,101	24,312	24,347	8,689	4,637	1,472
Black	2,262	678	611	208	295	158	289	95	-	10	10
Asian	10,888	1,469	2,248	2,401	2,373	1,165	791	404	18	18	-
Other[1]	3,553	836	898	528	686	279	86	371	34	18	34
Mining											
Sex	7,334	1,694	1,516	879	704	438	619	628	322	373	161
Male	7,228	1,626	1,489	876	704	430	619	628	322	373	161
Female	107	68	27	3	-	8	-	-	-	-	-
Race	7,334	1,694	1,516	879	704	438	619	628	322	373	161
White	7,033	1,531	1,480	879	686	420	590	610	322	373	161
Black	28	-	-	-	-	-	10	18	-	-	-
Asian	109	18	36	-	36	-	18	-	-	-	-
Other[1]	163	145	-	-	-	18	-	-	-	-	-
Nuclear											
Sex	9,657	2,101	1,931	1,562	1,837	782	595	441	360	34	34
Male	9,520	2,034	1,870	1,553	1,837	782	595	441	360	34	34
Female	137	67	61	8	-	-	-	-	-	-	-
Race	9,657	2,101	1,931	1,562	1,837	782	595	441	360	34	34
White	8,705	1,853	1,864	1,398	1,583	782	576	441	360	34	34
Black	82	20	31	10	20	-	-	-	-	-	-
Asian	730	228	200	101	182	-	18	-	-	-	-
Other[1]	141	-	36	52	52	-	-	-	-	-	-
Petroleum											
Sex	14,165	3,676	1,815	1,428	826	2,067	1,450	2,186	446	200	52
Male	13,7[illegible]	3,476	1,724	1,378	826	2,079	1,450	2,186	412	200	52
Female	383	199	91	50	-	8	-	-	34	-	-
Race	14,165	3,676	1,815	1,428	826	2,067	1,450	2,186	446	200	52
White	13,200	3,336	1,659	1,221	773	1,950	1,414	2,149	446	200	52
Black	139	55	64	10	-	10	-	-	-	-	-
Asian	302	119	92	36	18	18	-	18	-	-	-
Other[1]	524	166	-	161	34	109	36	18	-	-	-
Other											
Sex	222,930	38,097	38,560	34,588	29,570	26,092	23,404	20,032	7,831	3,672	1,084
Male	214,937	34,815	[illegible]236	33,530	29,090	25,869	23,215	19,915	7,680	3,512	1,075
Female	7,993	3,282	[illegible],324	1,058	480	223	189	118	151	160	8
Race	222,930	38,097	38,560	34,588	29,570	26,092	23,404	20,032	7,831	3,672	1,084
White	205,235	34,811	34,240	31,080	26,735	24,136	22,554	19,467	7,666	3,484	1,084
Black	4,975	855	1,510	1,004	545	643	140	95	31	152	-
Asian	8,638	1,571	2,009	1,703	1,750	807	365	298	100	36	-
Other[1]	4,082	860	801	821	541	507	346	172	34	-	-
Life scientists											
Sex	137,483	25,878	29,207	22,824	17,580	14,170	11,894	9,816	3,324	2,028	761
Male	114,432	19,529	22,638	19,004	15,451	12,336	10,912	9,102	2,823	1,885	751
Female	23,051	6,349	6,569	3,820	2,129	1,834	982	714	501	142	10
Race	137,483	25,878	29,207	22,824	17,580	14,170	11,894	9,816	3,324	2,028	761
White	128,056	23,775	27,424	20,809	15,933	13,527	11,320	9,492	3,226	2,008	742
Black	2,542	399	526	603	453	82	325	124	20	10	-
Asian	5,197	1,161	970	1,429	1,012	407	153	28	18	9	9
Other[1]	1,688	543	287	183	182	154	96	173	60	-	10
Biologists											
Sex	85,306	17,411	20,207	15,184	10,502	7,911	6,269	5,149	1,357	880	436
Male	69,956	13,246	15,736	12,482	9,238	6,610	5,739	4,630	1,029	821	426
Female	15,350	4,165	4,471	2,702	1,264	1,302	530	519	328	59	10
Race	85,306	17,411	20,207	15,184	10,502	7,911	6,269	5,149	1,357	880	436
White	79,939	16,240	19,218	13,957	9,504	7,485	5,893	5,043	1,302	880	417
Black	2,079	350	420	516	402	51	256	63	20	-	-
Asian	2,418	541	322	624	562	240	111	-	9	-	9
Other[1]	871	281	247	86	34	135	9	43	26	-	10

See Footnotes at end of Table

Table B-16. Number of Employed Scientists and Engineers by Field, Sex, Race, and Number of Years of Professional Experience: 1982—continued

Field, Sex, and Race	Total	5 and fewer	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41 and over	Not reported
Biochemists											
Sex	9,626	1,560	1,935	2,086	1,583	456	990	328	449	90	130
Male	7,567	1,043	1,450	1,739	1,159	408	918	299	322	80	130
Female	2,059	517	485	347	423	48	73	29	127	10	-
Race	9,626	1,560	1,935	2,086	1,583	456	990	326	449	90	130
White	8,519	1,397	1,736	1,780	1,393	382	907	279	424	90	130
Black	121	10	31	-	21	-	19	40	-	-	-
Asian	910	173	168	284	168	74	34	9	-	-	-
Other[1]	76	-	-	21	-	-	31	-	24	-	-
Agricultural scientists											
Sex	27,836	4,657	4,522	3,412	3,784	4,125	3,131	2,982	671	521	21
Male	25,867	3,620	3,849	3,323	3,743	4,115	3,011	2,982	671	521	21
Female	1,970	1,037	673	89	41	10	120	-	-	-	-
Race	27,836	4,657	4,522	3,412	3,784	4,125	3,131	2,982	671	521	21
White	26,005	4,171	4,300	2,983	3,474	4,066	3,045	2,842	671	521	21
Black	228	28	52	86	10	21	21	10	-	-	-
Asian	1,157	372	140	308	191	38	9	9	-	-	-
Other[1]	446	86	31	35	109	-	56	130	-	-	-
Medical scientists											
Sex	14,715	2,230	2,543	2,143	1,712	1,678	1,504	1,347	847	537	173
Male	11,042	1,600	1,603	1,460	1,312	1,204	1,245	1,181	801	463	173
Female	3,672	630	940	683	401	474	259	166	46	74	-
Race	14,715	2,230	2,543	2,143	1,712	1,678	1,504	1,347	847	537	173
White	13,594	1,967	2,171	1,979	1,561	1,594	1,474	1,328	828	518	173
Black	114	11	23	-	20	10	30	10	-	10	-
Asian	712	75	340	123	91	56	-	9	9	9	-
Other[1]	296	177	9	41	40	19	-	-	10	-	-
Psychologists											
Sex	84,140	15,520	21,001	16,585	10,628	8,330	7,546	2,315	1,416	508	291
Male	53,934	7,954	12,710	10,395	7,070	6,064	6,354	1,792	969	454	173
Female	30,205	7,566	8,291	6,191	3,557	2,266	1,192	523	447	54	118
Race	84,140	15,520	21,001	16,585	10,628	8,330	7,546	2,315	1,416	508	291
White	79,870	14,918	19,898	15,603	10,097	7,770	7,196	2,249	1,342	508	291
Black	2,672	416	680	413	315	501	286	47	11	-	-
Asian	777	127	162	309	89	41	41	9	-	-	-
Other[1]	821	59	261	260	127	19	22	9	64	-	-
Social scientists											
Sex	116,100	18,361	28,320	23,107	15,475	10,281	8,506	6,327	3,078	1,774	872
Male	90,519	12,128	19,542	17,804	13,447	9,056	7,284	5,925	2,950	1,525	857
Female	25,581	6,234	8,778	5,303	2,027	1,224	1,222	402	128	249	15
Race	116,100	18,361	28,320	23,107	15,475	10,281	8,506	6,327	3,078	1,774	872
White	105,581	16,323	25,730	20,734	13,779	9,581	7,990	5,902	2,897	1,774	872
Black	5,507	625	1,554	1,141	814	579	405	207	181	-	-
Asian	3,273	1,250	796	510	524	45	86	63	-	-	-
Other[1]	1,739	163	241	723	357	77	24	154	-	-	-
Economists											
Sex	46,965	7,718	9,316	8,311	6,347	5,144	4,174	3,245	1,124	1,174	413
Male	42,339	6,150	7,939	7,712	5,882	4,927	3,969	3,211	1,109	1,042	398
Female	4,626	1,569	1,377	599	465	217	204	33	15	132	15
Race	46,965	7,718	9,316	8,311	6,347	5,144	4,174	3,245	1,124	1,174	413
White	43,853	6,740	8,666	7,821	5,743	5,032	3,949	3,191	1,124	1,174	413
Black	735	93	171	145	91	67	169	-	-	-	-
Asian	1,907	732	396	345	324	24	44	43	-	-	-
Other[1]	470	153	83	-	190	21	12	11	-	-	-
Sociologists / anthropologists											
Sex	22,993	3,598	6,827	5,324	3,177	1,273	992	1,123	656	12	12
Male	14,646	1,754	3,355	3,526	2,688	984	703	1,070	543	12	12
Female	8,347	1,844	3,472	1,798	489	289	289	53	113	-	-
Race	22,993	3,598	6,827	5,324	3,177	1,273	992	1,123	656	12	12
White	20,564	3,531	6,381	4,106	2,954	1,084	911	1,098	475	12	12
Black	1,513	28	399	670	26	189	26	15	181	-	-
Asian	425	29	47	145	162	-	42	-	-	-	-
Other[1]	492	11	-	403	35	21	12	11	-	-	-
Other social scientists											
Sex	46,142	7,045	12,177	9,473	5,951	3,864	3,340	1,959	1,298	588	447
Male	33,534	4,224	8,248	6,566	4,878	3,146	2,612	1,643	1,298	471	447
Female	12,608	2,820	3,928	2,907	1,073	718	729	316	-	117	-
Race	46,142	7,045	12,177	9,473	5,951	3,864	3,340	1,959	1,298	588	447
White	41,164	6,052	10,683	8,806	5,083	3,465	3,129	1,613	1,298	588	447
Black	3,260	504	984	326	697	344	211	193	-	-	-
Asian	941	489	353	20	38	21	-	20	-	-	-
Other[1]	777	-	157	320	133	34	-	133	-	-	-

NOTE: Detail may not add to total due to rounding.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-17. Number of Employed Scientists and Engineers by Field, Sex, Race, and Highest Degree: 1982

Field, Sex, and Race	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Total, all fields								
Sex	1,759,344	260,032	9,843	437,237	881,477	35,500	486	134,769
Male	1,598,067	224,983	9,090	381,672	814,888	34,902	458	132,074
Female	161,277	35,049	753	55,565	66,589	598	28	2,695
Race	1,759,344	260,032	9,843	437,237	881,477	35,500	486	134,769
White	1,606,064	232,774	9,447	387,080	817,054	33,242	476	125,991
Black	38,346	4,216	107	11,440	18,912	739	10	2,921
Asian	86,997	19,326	199	32,153	31,470	635	-	3,215
Other[1]	27,937	3,717	90	6,565	14,041	883	-	2,641
Physical scientists								
Sex	115,821	48,573	161	25,086	42,002	-	-	-
Male	104,673	45,840	152	21,629	37,053	-	-	-
Female	11,148	2,733	9	3,457	4,949	-	-	-
Race	115,821	48,573	161	25,086	42,002	-	-	-
White	104,202	44,098	143	22,107	37,854	-	-	-
Black	2,595	560	18	744	1,273	-	-	-
Asian	7,129	3,016	-	1,756	2,357	-	-	-
Other[1]	1,895	899	-	478	518	-	-	-
Chemists								
Sex	78,028	27,770	118	15,785	34,356	-	-	-
Male	68,873	25,922	109	12,929	29,913	-	-	-
Female	9,155	1,847	9	2,856	4,443	-	-	-
Race	78,028	27,770	118	15,785	34,356	-	-	-
White	69,177	25,033	109	13,407	30,628	-	-	-
Black	2,136	466	9	493	1,168	-	-	-
Asian	5,695	1,838	-	1,585	2,272	-	-	-
Other[1]	1,021	432	-	301	288	-	-	-
Physicists / astronomers								
Sex	25,802	15,450	34	5,795	4,523	-	-	-
Male	24,410	14,683	34	5,388	4,305	-	-	-
Female	1,392	767	-	407	218	-	-	-
Race	25,802	15,450	34	5,795	4,523	-	-	-
White	23,860	14,132	34	5,435	4,259	-	-	-
Black	330	85	-	196	49	-	-	-
Asian	1,081	991	-	47	43	-	-	-
Other[1]	531	242	-	117	172	-	-	-
Other physical scientists								
Sex	11,991	5,353	9	3,506	3,123	-	-	-
Male	11,390	5,234	9	3,312	2,835	-	-	-
Female	601	119	-	194	288	-	-	-
Race	11,991	5,353	9	3,506	3,123	-	-	-
White	11,165	4,933	-	3,265	2,967	-	-	-
Black	130	9	9	56	56	-	-	-
Asian	353	186	-	125	42	-	-	-
Other[1]	343	225	-	60	58	-	-	-
Mathematical scientists								
Sex	43,944	16,531	93	14,641	12,679	-	-	-
Male	35,893	14,959	81	10,730	10,123	-	-	-
Female	8,051	1,572	12	3,912	2,556	-	-	-
Race	43,944	16,531	93	14,641	12,679	-	-	-
White	39,450	14,807	72	12,813	11,759	-	-	-
Black	1,404	490	-	473	441	-	-	-
Asian	2,333	1,007	21	1,050	255	-	-	-
Other[1]	758	228	-	306	225	-	-	-
Mathematicians								
Sex	36,945	14,085	72	11,473	11,315	-	-	-
Male	30,900	12,888	72	8,621	9,319	-	-	-
Female	6,044	1,197	-	2,851	1,996	-	-	-
Race	36,945	14,085	72	11,473	11,315	-	-	-
White	33,282	12,500	72	10,072	10,638	-	-	-
Black	1,202	463	-	355	383	-	-	-
Asian	1,892	912	-	758	222	-	-	-
Other[1]	569	209	-	287	73	-	-	-
Statisticians								
Sex	7,000	2,446	21	3,169	1,364	-	-	-
Male	4,993	2,071	9	2,109	804	-	-	-
Female	2,007	375	12	1,060	560	-	-	-
Race	7,000	2,446	21	3,169	1,364	-	-	-
White	6,168	2,306	-	2,741	1,121	-	-	-
Black	202	26	-	117	58	-	-	-
Asian	440	94	21	292	33	-	-	-
Other[1]	189	19	-	19	152	-	-	-
Computer specialists								
Sex	168,578	7,315	355	48,277	112,631	-	-	-
Male	132,139	6,565	355	40,138	85,081	-	-	-
Female	36,438	749	-	8,139	27,550	-	-	-
Race	168,578	7,315	355	48,277	112,631	-	-	-
White	152,161	6,097	334	42,773	102,957	-	-	-
Black	5,604	34	11	1,206	4,353	-	-	-
Asian	7,944	994	9	3,712	3,229	-	-	-
Other[1]	2,869	190	-	586	2,093	-	-	-

See Footnotes at end of Table

Table B-17. Number of Employed Scientists and Engineers by Field, Sex, Race, and Highest Degree: 1982—continued

Field, Sex, and Race	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Environmental scientists								
Sex	42,407	8,516	200	15,276	18,416	-	-	-
Male	39,341	8,005	200	14,091	17,046	-	-	-
Female	3,066	511	-	1,185	1,370	-	-	-
Race	42,407	8,516	200	15,276	18,416	-	-	-
White	40,772	7,880	200	14,853	17,840	-	-	-
Black	325	33	-	91	202	-	-	-
Asian	900	556	-	251	93	-	-	-
Other¹	410	47	-	81	281	-	-	-
Earth scientists								
Sex	35,850	6,327	200	13,090	16,234	-	-	-
Male	33,280	5,969	200	12,047	15,064	-	-	-
Female	2,571	358	-	1,043	1,170	-	-	-
Race	35,850	6,327	200	13,090	16,234	-	-	-
White	34,668	5,959	200	12,742	15,768	-	-	-
Black	248	23	-	79	146	-	-	-
Asian	616	308	-	223	84	-	-	-
Other¹	318	37	-	45	236	-	-	-
Oceanographers								
Sex	1,649	467	-	720	463	-	-	-
Male	1,466	443	-	688	335	-	-	-
Female	183	24	-	32	127	-	-	-
Race	1,649	467	-	720	463	-	-	-
White	1,535	449	-	672	415	-	-	-
Black	33	9	-	12	12	-	-	-
Asian	9	9	-	-	-	-	-	-
Other¹	73	-	-	36	36	-	-	-
Atmospheric scientists								
Sex	4,907	1,722	-	1,466	1,720	-	-	-
Male	4,595	1,592	-	1,356	1,647	-	-	-
Female	312	130	-	111	72	-	-	-
Race	4,907	1,722	-	1,466	1,720	-	-	-
White	4,568	1,473	-	1,438	1,657	-	-	-
Black	45	-	-	-	45	-	-	-
Asian	275	238	-	28	9	-	-	-
Other¹	20	11	-	-	9	-	-	-
Engineers								
Sex	1,050,872	45,530	2,616	230,827	601,144	35,500	486	134,769
Male	1,027,135	44,659	2,570	225,566	586,906	34,902	458	132,074
Female	23,737	871	46	5,261	14,238	598	28	2,695
Race	1,050,872	45,530	2,616	230,827	601,144	35,500	486	134,769
White	955,972	35,455	2,351	200,313	558,144	33,242	476	125,991
Black	17,697	174	54	3,630	10,168	740	10	2,921
Asian	59,445	8,909	150	23,244	23,291	635	-	3,215
Other¹	17,758	992	60	3,640	9,541	883	-	2,641
Aeronautical / Astronautical								
Sex	46,007	2,812	320	13,302	22,030	1,354	-	6,189
Male	45,158	2,732	312	13,051	21,604	1,337	-	6,120
Female	849	80	8	251	425	17	-	68
Race	46,007	2,812	320	13,302	22,030	1,354	-	6,189
White	43,070	2,275	320	12,391	21,088	1,229	-	5,776
Black	639	11	-	210	286	34	-	98
Asian	1,790	482	-	586	448	73	-	202
Other¹	508	44	-	114	218	18	-	114
Chemical								
Sex	61,277	6,258	120	14,877	37,290	381	34	2,316
Male	58,849	6,172	102	14,449	35,445	373	34	2,275
Female	2,428	86	19	428	1,845	8	-	41
Race	61,277	6,258	120	14,877	37,290	381	34	2,316
White	54,906	4,598	110	13,055	34,513	381	34	2,215
Black	485	-	10	40	424	-	-	10
Asian	4,955	1,496	-	1,487	1,881	-	-	91
Other¹	931	163	-	295	472	-	-	-
Civil								
Sex	145,955	4,427	274	31,036	91,992	3,464	278	14,485
Male	143,655	4,427	274	30,526	90,429	3,386	278	14,335
Female	2,301	-	-	509	1,563	78	-	150
Race	145,955	4,427	274	31,036	91,992	3,464	278	14,485
White	128,475	3,043	203	24,984	83,600	3,278	278	13,088
Black	2,128	51	-	310	1,477	61	-	228
Asian	12,186	1,296	36	4,916	5,239	55	-	644
Other¹	3,166	38	34	825	1,676	71	-	524
Electrical / Electronic								
Sex	245,781	9,767	674	57,551	139,606	9,981	66	28,135
Male	242,350	9,581	666	56,864	137,528	9,875	66	27,748
Female	3,432	186	8	686	2,078	106	-	387
Race	245,781	9,767	674	57,551	139,606	9,981	66	28,135
White	220,133	7,540	562	49,467	127,521	9,214	66	25,761
Black	5,714	10	-	937	3,552	262	-	952
Asian	16,109	2,038	86	6,365	6,675	161	-	784
Other¹	3,825	179	27	781	1,858	343	-	637

See Footnotes at end of Table

Table B-17. Number of Employed Scientists and Engineers by Field, Sex, Race, and Highest Degree: 1982—continued

Field, Sex, and Race	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Industrial								
Sex	67,937	1,218	86	12,205	40,632	2,420	8	11,367
Male	65,926	1,202	86	11,967	39,299	2,357	-	11,016
Female	2,011	17	-	239	1,333	63	8	352
Race	67,937	1,218	86	12,205	40,632	2,420	8	11,367
White	64,322	1,142	86	10,671	39,290	2,342	8	10,831
Black	1,061	-	-	200	568	41	-	252
Asian	1,947	58	18	1,265	424	36	-	146
Other[1]	607	18	-	70	361	-	-	136
Materials								
Sex	22,886	3,312	177	5,608	11,547	420	-	1,823
Male	22,321	3,276	177	5,506	11,170	420	-	1,773
Female	565	36	-	102	377	-	-	50
Race	22,886	3,312	177	5,608	11,547	420	-	1,823
White	20,653	2,720	177	4,857	11,013	339	-	1,748
Black	184	10	-	20	123	10	-	20
Asian	1,790	564	-	611	343	36	-	36
Other[1]	258	18	-	120	68	34	-	18
Mechanical								
Sex	206,943	6,341	339	43,551	127,192	6,447	-	23,073
Male	203,411	6,166	339	42,714	125,173	6,350	-	22,669
Female	3,532	175	-	837	2,019	97	-	404
Race	206,943	6,341	339	43,551	127,192	6,447	-	23,073
White	190,240	4,440	336	38,743	118,617	6,164	-	21,940
Black	2,262	20	3	455	1,453	72	-	259
Asian	10,888	1,629	-	3,814	4,800	109	-	536
Other[1]	3,553	252	-	540	2,321	102	-	339
Mining								
Sex	7,334	419	18	751	5,630	71	-	446
Male	7,228	419	18	749	5,529	68	-	446
Female	107	-	-	3	101	3	-	-
Race	7,334	419	18	751	5,630	71	-	446
White	7,033	382	18	668	5,486	71	-	409
Black	28	-	-	28	-	-	-	-
Asian	109	36	-	55	18	-	-	-
Other[1]	163	-	-	-	127	-	-	36
Nuclear								
Sex	9,657	838	-	3,612	4,220	146	-	841
Male	9,520	830	-	3,549	4,154	146	-	841
Female	137	8	-	62	66	-	-	-
Race	9,657	838	-	3,612	4,220	146	-	841
White	8,705	719	-	3,347	3,716	136	-	787
Black	82	10	-	-	61	10	-	-
Asian	730	109	-	228	336	-	-	55
Other[1]	141	-	-	38	104	-	-	-
Petroleum								
Sex	14,165	672	-	2,024	9,652	102	-	1,715
Male	13,782	672	-	1,985	9,308	102	-	1,715
Female	383	-	-	39	344	-	-	-
Race	14,165	672	-	2,024	9,652	102	-	1,715
White	13,200	509	-	1,768	9,266	102	-	1,555
Black	139	-	-	10	64	-	-	65
Asian	302	56	-	202	27	-	-	18
Other[1]	524	109	-	44	295	-	-	77
Other								
Sex	222,930	9,465	609	46,310	111,354	10,716	98	44,380
Male	214,937	9,183	599	44,185	107,267	10,488	78	43,136
Female	7,993	281	10	2,125	4,086	227	20	1,243
Race	222,930	9,465	609	46,310	111,354	10,716	98	44,380
White	205,235	8,065	559	40,562	104,064	9,977	88	41,881
Black	4,975	61	40	1,418	2,150	259	10	1,037
Asian	8,636	1,147	10	3,517	3,097	164	-	704
Other[1]	4,082	172	-	813	2,022	316	-	758
Life scientists								
Sex	137,483	51,025	4,757	32,336	49,365	-	-	-
Male	114,432	43,522	4,085	24,740	42,076	-	-	-
Female	23,051	7,503	672	7,596	7,289	-	-	-
Race	137,483	51,025	4,757	32,336	49,365	-	-	-
White	128,056	47,178	4,709	29,868	46,301	-	-	-
Black	2,542	866	10	787	847	-	-	-
Asian	5,197	2,630	18	1,052	1,496	-	-	-
Other[1]	1,688	320	19	629	721	-	-	-
Biologists								
Sex	85,306	30,236	559	21,153	33,356	-	-	-
Male	69,956	26,139	412	15,314	28,091	-	-	-
Female	15,350	4,096	146	5,839	5,266	-	-	-
Race	85,306	30,236	559	21,153	33,356	-	-	-
White	79,939	28,117	559	19,960	31,303	-	-	-
Black	2,079	744	-	647	688	-	-	-
Asian	2,418	1,205	-	274	859	-	-	-
Other[1]	871	92	-	273	506	-	-	-

See Footnotes at end of Table

Table B-17. Number of Employed Scientists and Engineers by Field, Sex, Race, and Highest Degree: 1982—continued

Field, Sex, and Race	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Biochemists								
Sex	9,626	7,485	-	1,561	581	-	-	-
Male	7,567	6,066	-	1,108	393	-	-	-
Female	2,059	1,419	-	452	188	-	-	-
Race	9,626	7,486	-	1,561	581	-	-	-
White	8,519	6,647	-	1,319	553	-	-	-
Black	121	62	-	49	9	-	-	-
Asian	910	729	-	162	18	-	-	-
Other[1]	76	48	-	31	-	-	-	-
Agricultural scientists								
Sex	27,836	7,497	109	6,931	13,300	-	-	-
Male	25,867	6,907	109	6,632	12,219	-	-	-
Female	1,970	590	-	299	1,081	-	-	-
Race	27,836	7,497	109	6,931	13,300	-	-	-
White	26,005	7,007	109	6,293	12,597	-	-	-
Black	228	49	-	73	107	-	-	-
Asian	1,157	362	-	395	400	-	-	-
Other[1]	446	80	-	171	195	-	-	-
Medical scientists								
Sex	14,715	5,806	4,089	2,692	2,128	-	-	-
Male	11,042	4,411	3,564	1,694	1,373	-	-	-
Female	3,672	1,395	525	997	755	-	-	-
Race	14,715	5,806	4,089	2,692	2,128	-	-	-
White	13,594	5,407	4,042	2,297	1,848	-	-	-
Black	114	43	10	19	43	-	-	-
Asian	712	254	18	221	219	-	-	-
Other[1]	295	102	19	155	19	-	-	-
Psychologists								
Sex	84,140	42,294	64	32,379	9,404	-	-	-
Male	53,934	28,746	64	18,055	7,070	-	-	-
Female	30,206	13,548	-	14,324	2,333	-	-	-
Race	84,140	42,294	64	32,379	9,404	-	-	-
White	79,870	40,767	64	30,083	8,956	-	-	-
Black	2,672	784	-	1,642	285	-	-	-
Asian	777	369	-	355	64	-	-	-
Other[1]	821	404	-	299	118	-	-	-
Social scientists								
Sex	116,100	40,249	1,599	38,415	35,837	-	-	-
Male	90,519	32,687	1,584	26,715	29,533	-	-	-
Female	25,581	7,562	15	11,700	6,304	-	-	-
Race	116,100	40,249	1,599	38,415	35,837	-	-	-
White	105,581	36,492	1,575	34,270	33,244	-	-	-
Black	5,507	1,264	13	2,866	1,363	-	-	-
Asian	3,273	1,856	-	732	685	-	-	-
Other[1]	1,739	637	11	546	545	-	-	-
Economists								
Sex	46,965	15,901	407	13,929	16,728	-	-	-
Male	42,339	14,450	407	12,159	15,323	-	-	-
Female	4,626	1,451	-	1,770	1,404	-	-	-
Race	46,965	15,901	407	13,929	16,728	-	-	-
White	43,853	14,519	397	12,845	16,092	-	-	-
Black	735	129	-	423	183	-	-	-
Asian	1,907	1,115	-	596	197	-	-	-
Other[1]	470	138	11	65	256	-	-	-
Sociologists / anthropologists								
Sex	22,993	10,395	200	5,328	7,070	-	-	-
Male	14,646	6,778	184	3,098	4,585	-	-	-
Female	8,347	3,617	15	2,230	2,485	-	-	-
Race	22,993	10,395	200	5,328	7,070	-	-	-
White	20,564	9,537	200	4,648	6,180	-	-	-
Black	1,513	283	-	639	612	-	-	-
Asian	425	243	-	31	151	-	-	-
Other[1]	492	353	-	11	128	-	-	-
Other social scientists								
Sex	46,142	13,953	992	19,158	12,039	-	-	-
Male	33,534	11,460	992	11,458	9,624	-	-	-
Female	12,608	2,493	-	7,700	2,415	-	-	-
Race	46,142	13,953	992	19,158	12,039	-	-	-
White	41,164	12,436	979	16,777	10,973	-	-	-
Black	3,260	873	13	1,806	568	-	-	-
Asian	941	499	-	105	337	-	-	-
Other[1]	777	146	-	470	161	-	-	-

NOTE: Detail may not add to total due to rounding.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-18. Number of Employed Scientists and Engineers by Field, Sex, Race, and Age: 1982

Field, Sex, and Race	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Total, all fields												
Sex	1,759,344	214,915	294,688	304,717	239,746	196,659	195,148	175,949	95,122	24,223	15,120	3,056
Male	1,598,067	173,671	257,581	274,815	221,286	185,903	185,594	168,303	91,350	23,091	14,097	2,381
Female	161,277	41,245	37,107	29,903	18,460	10,756	9,554	7,646	3,773	1,132	1,023	674
Race	1,759,344	214,915	294,688	304,717	239,746	196,659	195,148	175,949	95,122	24,223	15,120	3,055
White	1,606,064	196,758	264,479	271,733	212,888	178,531	181,828	167,844	91,849	23,049	14,592	2,713
Black	38,346	6,339	7,918	7,323	4,786	3,975	3,839	2,272	830	815	63	184
Asian	86,997	8,216	17,028	19,938	17,317	11,145	7,216	3,939	1,613	325	173	88
Other[1]	27,937	3,602	5,264	5,723	4,755	3,008	2,464	1,894	831	34	292	70
Physical scientists												
Sex	115,821	10,351	14,599	20,375	18,314	13,910	14,832	12,556	8,098	1,481	1,165	141
Male	104,673	7,923	12,486	18,702	17,028	12,834	13,824	12,071	7,348	1,286	1,028	141
Female	11,148	2,428	2,113	1,673	1,286	1,076	1,008	485	750	194	138	-
Race	115,821	10,351	14,599	20,375	18,314	13,910	14,832	12,556	8,098	1,481	1,165	141
White	104,202	9,421	12,646	17,554	16,643	12,464	13,370	11,945	7,808	1,288	1,147	117
Black	2,595	306	337	685	193	214	354	124	215	168	-	-
Asian	7,129	460	1,299	1,673	1,194	1,008	875	419	134	24	18	24
Other[1]	1,895	165	318	463	285	224	233	68	141	-	-	-
Chemists												
Sex	78,028	7,763	8,914	13,396	12,128	8,762	10,277	8,756	6,050	1,069	772	141
Male	68,873	5,910	7,219	11,893	10,991	7,824	9,356	8,342	5,651	891	655	141
Female	9,155	1,853	1,695	1,503	1,137	938	922	414	399	178	117	-
Race	78,028	7,763	8,914	13,396	12,128	8,762	10,277	8,756	6,050	1,069	772	141
White	69,177	6,990	7,507	11,230	10,783	7,632	9,300	8,368	5,618	876	754	117
Black	2,136	287	269	479	165	157	298	106	205	169	-	-
Asian	5,695	436	1,090	1,306	1,054	865	553	214	109	24	18	24
Other[1]	1,021	50	48	380	125	107	126	68	117	-	-	-
Physicists / astronomers												
Sex	25,802	1,485	3,743	4,985	4,368	3,757	3,211	2,483	1,330	310	130	-
Male	24,410	1,149	3,475	4,850	4,304	3,653	3,169	2,423	979	294	114	-
Female	1,392	336	268	134	64	104	42	60	351	17	17	-
Race	25,802	1,485	3,743	4,985	4,368	3,757	3,211	2,483	1,330	310	130	-
White	23,860	1,373	3,448	4,503	4,117	3,545	2,822	2,306	1,305	310	130	-
Black	330	9	59	187	19	38	19	-	-	-	-	-
Asian	1,081	-	142	237	122	91	288	177	24	-	-	-
Other[1]	531	102	94	58	110	83	83	-	-	-	-	-
Other physical scientists												
Sex	11,991	1,103	1,942	1,995	1,819	1,390	1,343	1,317	718	102	282	-
Male	11,360	864	1,792	1,959	1,733	1,357	1,298	1,306	718	102	280	-
Female	601	239	150	36	86	33	45	11	-	-	3	-
Race	11,991	1,103	1,942	1,995	1,819	1,390	1,343	1,317	718	102	282	-
White	11,165	1,058	1,690	1,821	1,742	1,298	1,248	1,271	664	102	282	-
Black	130	9	9	19	9	19	37	19	9	-	-	-
Asian	353	24	67	[illegible]	18	52	34	27	-	-	-	-
Other[1]	343	12	176	[illegible]	49	34	24	-	24	-	-	-
Mathematical scientists												
Sex	43,944	3,626	6,903	10,162	8,135	4,756	4,344	3,731	1,327	812	137	12
Male	35,893	2,171	5,426	8,015	6,951	4,178	3,923	3,255	1,099	739	137	-
Female	8,051	1,456	1,478	2,147	1,185	579	421	476	228	73	-	12
Race	43,944	3,626	6,903	10,162	8,135	4,7[illegible]	4,344	3,731	1,327	812	137	12
White	39,450	3,070	6,221	9,460	7,403	3,7[illegible]	3,787	3,516	1,278	797	137	-
Black	1,404	128	150	251	103	56[illegible]	146	9	30	15	-	12
Asian	2,333	117	390	416	510	342	353	196	9	-	-	-
Other[1]	758	311	142	36	120	72	58	9	9	-	-	-
Mathematicians												
Sex	36,945	2,542	5,179	8,568	6,918	4,282	4,151	3,415	1,127	649	101	12
Male	30,900	1,670	4,159	6,840	6,057	3,782	3,767	2,994	917	612	101	-
Female	6,044	872	1,021	1,728	861	500	384	421	210	36	-	12
Race	36,945	2,542	5,179	8,568	6,918	4,282	4,151	3,415	1,127	649	101	12
White	33,282	2,261	4,600	8,013	6,285	3,424	3,632	3,220	1,112	634	101	-
Black	1,202	70	109	186	92	548	146	9	15	15	-	12
Asian	1,892	52	329	334	422	246	324	186	-	-	-	-
Other[1]	568	159	142	36	120	63	49	-	-	-	-	-
Statisticians												
Sex	7,000	1,084	1,724	1,594	1,217	474	192	315	200	163	36	-
Male	4,993	501	1,267	1,175	893	396	156	261	182	127	36	-
Female	2,007	583	457	419	324	78	36	55	18	36	-	-
Race	7,000	1,084	1,724	1,594	1,217	474	192	315	200	163	36	-
White	6,168	809	1,621	1,447	1,118	357	155	298	166	163	36	-
Black	202	58	41	65	12	12	-	-	15	-	-	-
Asian	44[illegible]	66	61	82	86	98	2[illegible]	10	9	-	-	-
Other[1]	18[illegible]	152	-	-	-	9	9	9	9	-	-	-
Computer specialists												
Sex	168,578	32,957	45,184	40,013	21,436	13,733	8,633	4,336	1,384	181	201	519
Male	132,139	20,744	34,754	32,384	18,429	12,493	7,763	3,694	1,155	181	181	362
Female	36,438	12,214	10,430	7,629	3,007	1,240	870	642	230	-	20	157
Race	168,578	32,957	45,184	40,013	21,436	13,733	8,633	4,336	1,384	181	201	519
White	152,161	29,311	39,993	36,586	18,984	12,544	8,040	3,948	1,354	181	201	519
Black	5,604	1,181	1,665	1,084	691	345	443	196	-	-	-	-
Asian	7,944	1,427	2,888	1,815	1,111	603	40	50	10	-	-	-
Other[1]	2,869	538	638	527	650	242	111	142	20	-	-	-

See Footnotes at end of Table

Table B-18. Number of Employed Scientists and Engineers by Field, Sex, Race, and Age: 1982—continued

Field, Sex, and Race	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Environmental scientists												
Sex	42,407	6,226	7,885	6,079	3,786	5,036	5,187	5,059	2,176	569	390	14
Male	39,341	4,953	7,106	5,589	3,620	4,947	5,112	4,962	2,117	544	390	-
Female	3,066	1,273	779	490	166	89	75	97	59	25	-	14
Race	42,407	6,226	7,885	6,079	3,786	5,036	5,187	5,059	2,176	569	390	14
White	40,772	5,964	7,543	5,866	3,459	4,800	4,998	5,021	2,140	569	379	14
Black	325	55	177	15	-	-	55	12	-	-	12	-
Asian	900	22	122	180	254	207	87	18	9	-	-	-
Other[1]	410	165	43	18	73	28	47	9	27	-	-	-
Earth scientists												
Sex	35,850	5,453	6,527	4,711	2,937	4,283	4,799	4,354	1,867	515	390	14
Male	33,280	4,233	5,964	4,390	2,775	4,210	4,734	4,269	1,825	490	390	-
Female	2,571	1,220	564	321	162	73	65	86	42	25	-	14
Race	35,850	5,453	6,527	4,711	2,937	4,283	4,799	4,354	1,867	515	390	14
White	34,669	5,274	6,205	4,551	2,676	4,216	4,661	4,328	1,850	515	379	14
Black	248	11	166	15	-	-	45	-	-	-	12	-
Asian	616	22	113	127	226	56	45	18	9	-	-	-
Other[1]	318	146	43	18	35	10	47	9	9	-	-	-
Oceanographers												
Sex	1,649	121	313	513	167	206	136	157	36	-	-	-
Male	1,466	121	272	375	163	206	136	157	36	-	-	-
Female	183	-	41	138	4	-	-	-	-	-	-	-
Race	1,649	121	313	513	167	206	136	157	36	-	-	-
White	1,535	103	302	513	149	179	127	145	18	-	-	-
Black	33	-	12	-	-	-	9	12	-	-	-	-
Asian	9	-	-	-	-	9	-	-	-	-	-	-
Other[1]	73	18	-	-	18	18	-	-	18	-	-	-
Atmospheric scientists												
Sex	4,907	652	1,045	855	682	547	252	548	272	54	-	-
Male	4,595	599	871	824	682	531	242	537	256	54	-	-
Female	312	53	174	31	-	17	11	11	17	-	-	-
Race	4,907	652	1,045	855	682	547	252	548	272	54	-	-
White	4,568	607	1,036	802	634	405	210	548	272	54	-	-
Black	45	45	-	-	-	-	-	-	-	-	-	-
Asian	275	-	9	53	28	142	42	-	-	-	-	-
Other[1]	20	-	-	-	20	-	-	-	-	-	-	-
Engineers												
Sex	1,050,872	125,785	158,334	161,552	137,022	125,853	125,163	123,385	66,546	15,400	10,219	1,613
Male	1,027,135	114,560	153,607	158,538	135,577	124,778	124,335	122,415	66,248	15,339	10,177	1,562
Female	23,737	11,224	4,727	3,015	1,445	1,076	828	971	298	62	41	51
Race	1,050,872	125,785	158,334	161,552	137,022	125,853	125,163	123,385	66,546	15,400	10,219	1,613
White	955,972	114,441	140,967	140,628	119,936	114,270	117,159	117,902	64,416	15,024	9,761	1,468
Black	17,697	3,589	4,022	3,047	2,258	1,880	1,436	1,237	325	51	51	20
Asian	59,445	5,523	10,206	13,811	12,090	7,869	5,251	2,869	1,316	291	146	55
Other[1]	17,758	2,230	3,139	4,066	2,738	2,035	1,318	1,378	489	34	261	70
Aeronautical / Astronautical												
Sex	46,007	3,573	3,803	5,135	4,963	7,809	7,772	7,796	4,239	579	271	68
Male	45,158	3,213	3,646	5,043	4,937	7,757	7,696	7,726	4,222	579	271	68
Female	849	360	157	91	26	52	76	69	17	-	-	-
Race	46,007	3,573	3,803	5,135	4,963	7,809	7,772	7,796	4,239	579	271	68
White	43,070	3,328	3,476	4,568	4,520	7,317	7,345	7,511	4,124	542	271	68
Black	639	72	51	117	154	119	75	41	10	-	-	-
Asian	1,790	112	267	403	255	210	334	155	19	36	-	-
Other[1]	508	62	9	47	34	164	18	89	86	-	-	-
Chemical												
Sex	61,277	9,647	8,543	8,881	8,560	6,331	6,527	6,565	4,810	846	500	68
Male	58,849	8,419	7,935	8,552	8,492	6,263	6,432	6,540	4,810	846	492	68
Female	2,428	1,228	608	328	67	68	95	25	-	-	8	-
Race	61,277	9,647	8,543	8,881	8,560	6,331	6,527	6,565	4,810	846	500	68
White	54,906	8,966	7,484	[illegible]	7,113	5,775	6,014	6,439	4,721	828	482	68
Black	485	206	75	[illegible]	20	10	13	-	10	-	-	-
Asian	4,955	335	857	[illegible]	1,213	404	441	83	79	18	18	-
Other[1]	931	140	127	208	213	142	58	43	-	-	-	-
Civil												
Sex	145,955	16,573	23,697	22,684	17,895	17,782	16,036	17,062	8,559	2,908	2,564	196
Male	143,655	15,326	23,373	22,470	17,752	17,680	15,878	17,012	8,507	2,908	2,564	186
Female	2,301	1,247	324	214	143	102	158	51	51	-	-	10
Race	145,955	16,573	23,697	22,684	17,895	17,782	16,036	17,062	8,559	2,908	2,564	196
White	128,475	14,921	21,022	19,049	14,419	15,360	14,356	15,071	8,057	2,788	2,475	157
Black	2,128	309	464	296	280	197	292	204	55	10	-	20
Asian	12,186	955	1,552	2,392	2,808	1,860	1,250	845	380	109	36	-
Other[1]	3,166	388	659	948	388	365	138	142	66	-	52	18
Electrical / Electronic												
Sex	245,781	31,129	37,684	39,769	33,930	29,687	31,585	26,426	11,276	2,194	1,735	366
Male	242,350	29,601	37,086	39,200	33,639	29,513	31,466	26,324	11,253	2,185	1,727	357
Female	3,432	1,529	598	570	291	174	120	102	23	8	8	8
Race	245,781	31,129	37,684	39,769	33,930	29,687	31,585	26,426	11,276	2,194	1,735	366
White	220,133	27,750	32,615	34,268	29,578	27,155	28,957	24,809	10,815	2,175	1,665	347
Black	5,714	1,023	1,372	905	696	422	628	583	85	-	-	-
Asian	16,109	1,862	3,116	3,619	3,016	1,772	1,636	672	343	18	36	18
Other[1]	3,825	495	581	977	640	339	364	362	34	-	34	-

See Footnotes at end of Table

Table B-18. Number of Employed Scientists and Engineers by Field, Sex, Race, and Age: 1982—continued

Field, Sex, and Race	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Industrial												
Sex	67,937	8,104	10,748	11,957	9,553	8,757	7,484	6,625	3,613	492	360	244
Male	65,926	7,024	10,305	11,720	9,416	8,715	7,476	6,589	3,594	492	351	244
Female	2,011	1,080	443	237	137	41	8	37	19	-	8	-
Race	67,937	8,104	10,748	11,957	9,553	8,757	7,484	6,625	3,613	492	360	244
White	64,322	7,637	9,909	10,898	9,067	8,263	7,344	6,569	3,549	482	360	244
Black	1,061	256	259	225	136	72	51	20	31	10	-	-
Asian	1,947	92	397	754	312	320	55	18	-	-	-	-
Other[1]	607	118	183	80	38	102	34	18	34	-	-	-
Materials												
Sex	22,886	2,325	3,044	3,962	3,256	2,328	2,566	3,133	1,954	299	10	8
Male	22,321	2,018	3,001	3,903	3,208	2,278	2,566	3,116	1,921	299	10	-
Female	565	307	42	59	48	50	-	17	33	-	-	8
Race	22,886	2,325	3,044	3,962	3,256	2,328	2,566	3,133	1,954	299	10	8
White	20,653	1,795	2,737	3,445	2,831	2,076	2,499	3,055	1,918	289	-	8
Black	184	51	41	20	10	-	31	10	-	10	10	-
Asian	1,790	445	247	463	380	200	18	-	36	-	-	-
Other[1]	258	34	18	34	34	52	18	68	-	-	-	-
Mechanical												
Sex	206,943	22,785	27,819	28,441	27,977	25,204	23,817	27,917	16,827	3,852	2,029	274
Male	203,411	21,089	27,343	27,978	27,807	25,011	23,725	27,555	16,784	3,816	2,029	274
Female	3,532	1,696	477	463	170	194	92	362	42	37	-	-
Race	206,943	22,785	27,819	28,441	27,977	25,204	23,817	27,917	16,827	3,852	2,029	274
White	190,240	20,976	24,893	24,828	25,049	23,164	22,403	26,750	16,306	3,727	1,940	203
Black	2,282	562	375	435	205	195	163	245	81	-	20	-
Asian	10,866	831	1,823	2,334	2,369	1,476	986	678	260	91	-	18
Other[1]	3,553	416	728	843	355	369	264	244	179	34	68	52
Mining												
Sex	7,334	1,506	1,313	899	578	344	684	947	729	231	104	-
Male	7,228	1,435	1,304	886	565	344	684	947	729	231	104	-
Female	107	72	8	13	13	-	-	-	-	-	-	-
Race	7,334	1,506	1,313	899	578	344	684	947	729	231	104	-
White	7,033	1,506	1,240	889	560	290	684	838	711	231	86	-
Black	28	-	-	10	-	-	-	-	18	-	-	-
Asian	109	-	55	-	18	36	-	-	-	-	-	-
Other[1]	163	-	18	-	-	18	-	109	-	-	18	-
Nuclear												
Sex	9,657	1,322	1,800	2,153	1,547	984	837	606	355	34	18	-
Male	9,520	1,239	1,772	2,136	1,547	976	837	606	355	34	18	-
Female	137	83	28	18	-	8	-	-	-	-	-	-
Race	9,657	1,322	1,800	2,153	1,547	984	837	606	355	34	18	-
White	8,705	1,228	1,574	1,885	1,248	974	818	588	355	34	-	-
Black	82	20	10	31	10	10	-	-	-	-	-	-
Asian	730	73	182	202	219	-	18	18	-	-	18	-
Other[1]	141	-	34	36	70	-	-	-	-	-	-	-
Petroleum												
Sex	14,165	2,921	1,828	1,357	903	1,645	2,181	1,754	1,203	225	114	34
Male	13,782	2,681	1,779	1,304	895	1,645	2,181	1,754	1,169	225	114	34
Female	383	239	49	53	8	-	-	-	34	-	-	-
Race	14,165	2,921	1,828	1,357	903	1,645	2,181	1,754	1,203	225	114	34
White	13,200	2,729	1,656	1,229	723	1,489	2,163	1,700	1,166	225	86	34
Black	139	51	20	37	10	10	-	-	-	-	10	-
Asian	302	64	74	73	18	36	-	18	18	-	-	-
Other[1]	524	77	78	18	152	109	18	36	18	-	18	-
Other												
Sex	222,930	25,900	38,055	36,314	27,860	24,982	25,674	24,554	12,981	3,741	2,514	356
Male	214,937	22,516	36,063	35,346	27,318	24,597	25,396	24,245	12,903	3,724	2,496	331
Female	7,993	3,384	1,992	968	541	385	278	308	78	17	17	25
Race	222,930	25,900	38,055	36,314	27,860	24,982	25,674	24,554	12,981	3,741	2,514	356
White	205,235	23,687	34,360	32,474	24,829	22,409	24,573	23,772	12,695	3,702	2,397	338
Black	4,975	959	1,355	900	736	624	182	133	54	20	10	-
Asian	8,638	755	1,636	2,064	1,481	1,574	513	382	161	18	36	18
Other[1]	4,082	500	704	876	814	374	405	267	70	-	70	-
Life scientists												
Sex	137,483	17,604	23,632	25,220	18,750	13,706	15,919	12,529	6,622	2,075	1,279	146
Male	114,432	12,534	18,241	21,281	15,781	11,924	14,566	10,999	6,031	1,938	1,030	107
Female	23,051	5,070	5,391	3,939	2,969	1,782	1,353	1,530	592	137	249	39
Race	137,483	17,604	23,632	25,220	18,750	13,706	15,919	12,529	6,622	2,075	1,279	146
White	128,056	16,977	21,251	23,590	16,946	12,706	15,091	11,827	6,427	1,857	1,239	146
Black	2,542	169	502	458	383	271	175	342	32	208	-	-
Asian	5,197	340	1,258	1,015	1,335	630	387	121	83	9	9	-
Other[1]	1,688	109	622	157	86	98	266	239	80	-	31	-
Biologists												
Sex	85,306	12,486	16,964	16,774	10,717	8,568	8,352	6,264	3,672	881	490	137
Male	69,956	8,868	13,431	13,916	9,011	7,402	7,745	5,294	3,156	803	422	107
Female	15,350	3,618	3,533	2,858	1,706	1,166	607	969	517	78	68	29
Race	85,306	12,486	16,964	16,774	10,717	8,568	8,352	6,264	3,672	881	490	137
White	79,939	12,002	15,651	15,597	9,948	8,014	7,959	5,922	3,567	692	450	137
Black	2,079	127	429	366	329	231	134	252	22	189	-	-
Asian	2,418	248	546	709	416	284	122	46	37	-	9	-
Other[1]	871	109	338	102	25	40	135	43	47	-	31	-

See Footnotes at end of Table

Table B-18. Number of Employed Scientists and Engineers by Field, Sex, Race, and Age: 1982—continued

Field, Sex, and Race	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Biochemists												
Sex	9,626	776	1,557	2,012	1,522	1,150	978	980	327	218	109	-
Male	7,567	670	953	1,622	1,305	830	756	807	317	198	109	-
Female	2,059	106	604	389	217	320	222	173	9	20	-	-
Race	9,626	776	1,557	2,012	1,522	1,150	978	980	327	218	109	-
White	8,519	757	1,445	1,815	1,242	878	901	889	275	209	109	-
Black	121	-	-	32	20	10	9	40	-	9	-	-
Asian	910	19	112	165	239	262	67	20	26	-	-	-
Other[1]	76	-	-	-	21	-	-	31	24	-	-	-
Agricultural scientists												
Sex	27,836	3,486	3,352	4,318	4,036	2,610	5,000	2,997	1,408	389	239	-
Male	25,867	2,676	2,743	4,122	3,851	2,589	4,861	2,987	1,408	389	239	-
Female	1,970	811	609	196	185	21	139	10	-	-	-	-
Race	27,836	3,486	3,352	4,318	4,036	2,610	5,000	2,997	1,408	389	239	-
White	26,005	3,395	2,940	4,127	3,510	2,551	4,681	2,793	1,380	389	239	-
Black	228	31	50	62	24	21	10	21	10	-	-	-
Asian	1,157	61	254	104	493	30	179	27	9	-	-	-
Other[1]	446	-	107	26	9	9	130	156	9	-	-	-
Medical scientists												
Sex	14,715	856	1,760	2,118	2,474	1,377	1,589	2,288	1,215	587	441	10
Male	11,042	520	1,114	1,620	1,614	1,103	1,204	1,910	1,150	548	261	-
Female	3,672	336	646	498	861	275	385	378	66	39	181	10
Race	14,715	856	1,760	2,118	2,474	1,377	1,589	2,288	1,215	587	441	10
White	13,594	823	1,216	2,050	2,245	1,263	1,549	2,222	1,206	567	441	10
Black	114	12	23	-	10	9	21	29	-	10	-	-
Asian	712	21	346	37	188	55	19	26	9	9	-	-
Other[1]	295	-	176	29	31	49	-	10	-	-	-	-
Psychologists												
Sex	84,140	7,058	17,419	17,365	12,611	9,039	8,992	5,630	3,395	848	461	324
Male	53,934	3,283	10,753	11,618	8,425	5,989	5,963	3,771	2,236	598	236	64
Female	30,206	3,775	6,666	5,747	4,186	3,050	3,029	1,859	1,159	250	225	260
Race	84,140	7,058	17,419	17,365	12,611	9,039	8,992	5,630	3,395	848	461	324
White	79,870	6,696	16,794	16,605	11,692	8,469	8,477	5,420	3,275	810	461	172
Black	2,672	294	402	360	459	356	434	132	47	38	-	152
Asian	777	40	81	309	132	87	69	50	9	-	-	-
Other[1]	821	28	143	92	328	126	13	28	64	-	-	-
Social scientists												
Sex	116,100	11,308	20,732	23,951	19,693	10,627	11,079	8,724	5,574	2,860	1,267	286
Male	90,519	7,502	15,207	18,688	15,470	8,762	9,108	7,137	5,116	2,498	917	145
Female	25,581	3,806	5,525	5,263	4,223	1,866	1,970	1,587	458	362	351	141
Race	116,100	11,308	20,732	23,951	19,693	10,327	11,079	8,724	5,574	2,860	1,267	286
White	105,581	10,359	19,066	21,443	17,826	9,496	9,706	8,266	[illegible]	2,524	1,267	276
Black	5,507	616	663	1,424	700	570	798	220	[illegible]	336	-	-
Asian	3,273	277	784	720	691	378	155	217	[illegible]	-	-	9
Other[1]	1,739	56	218	364	476	183	420	21	-	-	-	-
Economists												
Sex	46,965	4,191	7,229	9,711	7,365	4,753	4,918	3,942	2,850	1,506	381	121
Male	42,339	2,869	6,066	9,117	7,046	4,406	4,742	3,694	2,658	1,359	264	121
Female	4,626	1,322	1,163	594	319	347	176	249	192	147	117	-
Race	46,965	4,191	7,229	9,711	7,365	4,753	4,918	3,942	2,850	1,506	381	121
White	43,853	3,829	6,421	9,286	6,649	4,628	4,653	3,731	2,818	1,337	381	121
Black	736	81	177	73	154	28	40	15	-	169	-	-
Asian	1,907	245	586	196	517	63	82	186	32	-	-	-
Other[1]	470	36	45	155	45	35	143	11	-	-	-	-
Sociologists / anthropologists												
Sex	22,993	1,668	4,959	5,546	4,570	1,429	1,936	1,867	411	344	109	156
Male	14,646	1,069	2,891	3,039	3,306	880	1,478	1,250	385	216	109	24
Female	8,347	599	2,068	2,507	1,264	549	458	618	25	128	-	132
Race	22,993	1,668	4,959	5,545	4,570	1,429	1,936	1,867	411	344	109	156
White	20,564	1,630	4,867	4,408	3,922	1,392	1,690	1,807	387	175	109	156
Black	1,513	15	81	810	[illegible]	15	183	39	13	169	-	-
Asian	425	12	-	198	142	-	52	11	10	-	-	-
Other[1]	482	11	11	129	298	23	11	11	-	-	-	-
Other social scientists												
Sex	46,142	5,449	8,544	8,695	7,758	4,446	4,224	2,914	2,313	1,011	778	9
Male	33,534	3,564	6,250	6,532	5,119	3,476	[illegible]	2,194	2,072	894	544	-
Female	12,608	1,885	2,294	2,163	2,639	970	1,335	720	241	117	234	9
Race	46,142	5,449	8,544	8,695	7,758	4,446	4,224	2,914	2,313	1,011	778	9
White	41,164	4,900	7,758	7,748	7,256	3,477	3,363	2,729	2,145	1,011	778	-
Black	3,260	520	425	541	337	527	575	166	168	-	-	-
Asian	941	20	198	326	32	315	20	20	-	-	-	9
Other[1]	777	9	162	80	133	126	266	-	-	-	-	-

NOTE: Detail may not add to total due to rounding.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-19. Number of Employed Scientists and Engineers by Field, Age, and Type of Employer: 1982

Field and Age	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Total, all fields	1,758,344	1,203,987	224,362	185,399	24,446	14,517	22,506	36,654	132,583	3,070	50,264	31,564	7,444	48,790
Under 30	214,915	158,742	22,050	19,649	1,136	1,266	2,530	3,611	11,369	694	5,660	3,142	876	6,242
30-34	294,688	206,969	31,454	25,459	2,624	3,371	5,222	7,152	20,738	448	9,687	5,874	970	6,173
35-39	304,717	203,858	38,710	31,358	5,096	2,255	5,235	7,810	24,960	426	9,511	6,035	1,345	6,817
40-44	239,748	155,976	36,450	30,669	4,099	1,682	3,285	4,425	20,757	374	7,343	3,851	1,105	6,123
45-49	196,659	128,510	27,001	20,644	4,358	1,999	2,011	4,710	17,929	471	6,199	3,829	1,035	4,964
50-54	195,148	131,235	28,079	23,361	3,114	1,604	1,495	3,824	16,750	217	4,387	3,535	557	5,069
55-59	175,949	126,045	20,125	16,845	2,061	1,219	1,634	2,726	12,241	177	4,701	2,784	954	4,563
60-64	95,122	67,489	13,578	11,380	1,535	663	606	1,442	5,644	52	2,177	1,359	465	2,311
65-69	24,223	15,105	5,004	4,516	182	306	196	385	1,569	109	411	645	46	751
70 and over	15,120	8,083	1,414	1,100	226	88	282	570	461	68	124	443	36	3,653
Not reported	3,055	1,936	494	418	12	64	9	-	177	34	165	68	-	123
Physical scientists	115,821	66,235	26,783	24,202	2,541	40	659	3,742	10,753	27	1,802	1,017	237	1,486
Under 30	10,351	6,390	2,649	2,627	-	22	26	85	639	9	218	17	-	319
30-34	14,599	9,455	2,842	2,691	151	-	75	442	1,006	-	554	188	36	-
35-39	20,375	11,705	4,303	3,754	549	-	275	836	2,254	-	326	418	17	238
40-44	18,314	10,953	3,854	3,478	376	-	198	776	1,945	18	321	118	56	75
45-49	13,910	7,525	3,627	2,808	819	-	51	620	1,717	-	43	50	-	276
50-54	14,832	8,759	3,870	3,835	17	18	26	334	1,488	-	169	127	-	58
55-59	12,556	8,269	2,435	2,377	58	-	9	491	1,107	-	67	9	9	160
60-64	8,096	4,890	2,273	1,996	277	-	-	58	423	-	80	89	117	167
65-69	1,481	836	434	359	75	-	-	77	112	-	-	-	-	21
70 and over	1,165	496	436	218	218	-	-	21	61	-	-	-	-	151
Not reported	141	58	58	58	-	-	-	-	-	-	24	-	-	-
Chemists	78,028	53,541	14,662	12,819	1,821	22	533	1,306	4,726	27	1,356	960	84	843
Under 30	7,763	5,297	1,702	1,680	-	22	26	85	310	9	118	17	-	199
30-34	8,914	6,441	1,366	1,232	134	-	17	41	389	-	484	176	-	-
35-39	13,396	8,441	2,516	2,134	382	-	275	384	1,091	-	308	372	17	12
40-44	12,128	8,242	2,248	2,073	175	-	138	359	738	18	191	118	-	75
45-49	8,762	5,175	2,187	1,644	543	-	51	158	899	-	24	50	-	218
50-54	10,277	7,410	1,824	1,807	17	-	17	51	740	-	59	118	-	58
55-59	8,756	7,024	1,054	1,054	-	-	9	231	353	-	67	9	9	-
60-64	6,050	4,432	1,129	852	277	-	-	-	94	-	80	89	58	167
65-69	1,069	556	359	284	75	-	-	18	112	-	-	-	-	21
70 and over	772	462	218	-	218	-	-	-	-	-	-	-	-	92
Not reported	141	58	58	58	-	-	-	-	-	-	24	-	-	-
Physicists / astronomers	25,802	9,806	10,248	9,617	612	18	126	1,574	3,386	-	66	10	36	546
Under 30	1,485	508	755	755	-	-	-	-	53	-	66	-	-	101
30-34	3,743	1,839	1,347	1,329	18	-	58	141	321	-	-	-	36	-
35-39	4,985	2,122	1,548	1,361	167	-	-	333	744	-	-	10	-	227
40-44	4,368	1,829	1,443	1,242	201	-	58	300	737	-	-	-	-	-
45-49	3,757	1,582	1,205	1,037	167	-	-	336	577	-	-	-	-	58
50-54	3,211	958	1,518	1,500	-	18	9	158	567	-	-	-	-	-
55-59	2,483	507	1,262	1,204	58	-	-	226	329	-	-	-	-	160
60-64	1,330	285	986	986	-	-	-	-	58	-	-	-	-	-
65-69	310	177	75	75	-	-	-	58	-	-	-	-	-	-
70 and over	130	-	109	109	-	-	-	21	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other physical scientists	11,981	5,966	1,874	1,765	109	-	-	862	2,642	-	377	57	117	77
Under 30	1,103	584	192	192	-	-	-	-	276	-	32	-	-	18
30-34	1,942	1,174	130	130	-	-	-	260	297	-	70	12	-	-
35-39	1,995	1,142	239	239	-	-	-	141	420	-	18	36	-	-
40-44	1,819	861	163	163	-	-	-	117	470	-	129	-	58	-
45-49	1,390	768	236	127	109	-	-	126	241	-	18	-	-	-
50-54	1,343	391	528	528	-	-	-	126	180	-	110	9	-	-
55-59	1,317	736	119	119	-	-	-	34	426	-	-	-	-	-
60-64	718	172	158	158	-	-	-	58	271	-	-	-	58	-
65-69	102	102	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	262	34	109	109	-	-	-	-	61	-	-	-	-	58
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mathematical scientists	43,944	17,400	20,091	16,635	3,355	101	202	698	4,086	27	491	155	99	686
Under 30	3,626	1,617	1,460	1,406	54	-	-	43	376	9	23	36	12	50
30-34	6,903	2,845	2,920	2,381	520	20	20	119	710	-	174	10	41	63
35-39	10,162	4,583	4,073	2,825	1,233	15	135	186	936	-	119	43	18	69
40-44	8,135	2,762	4,016	3,442	575	-	-	213	715	18	58	18	10	325
45-49	4,756	1,667	2,569	2,233	337	-	29	9	265	-	37	36	-	143
50-54	4,344	1,730	2,258	1,950	299	9	-	18	300	-	27	12	-	-
55-59	3,731	1,673	1,584	1,339	236	9	-	73	328	-	36	-	-	36
60-64	1,327	379	656	520	89	48	18	36	201	-	18	-	18	-
65-69	812	127	540	540	-	-	-	-	145	-	-	-	-	-
70 and over	137	18	-	-	-	-	-	-	119	-	-	-	-	-
Not reported	12	-	12	-	12	-	-	-	-	-	-	-	-	-
Mathematicians	36,945	14,910	17,740	14,323	3,337	80	117	508	2,814	-	91	92	44	629
Under 30	2,542	1,046	1,209	1,155	54	-	-	20	206	-	12	-	-	50
30-34	5,179	2,345	2,332	1,792	520	20	-	65	353	-	20	10	26	28
35-39	8,568	3,876	3,668	2,437	1,216	15	117	168	615	-	24	34	18	47
40-44	6,916	2,435	3,385	2,810	575	-	-	148	625	-	-	-	-	325
45-49	4,282	1,569	2,361	2,024	337	-	-	9	146	-	18	36	-	143
50-54	4,151	1,658	2,183	1,884	299	-	-	18	264	-	18	12	-	-
55-59	3,415	1,531	1,549	1,304	236	9	-	62	238	-	-	-	-	36
60-64	1,127	340	610	485	89	36	-	18	159	-	-	-	-	-
65-69	649	109	431	431	-	-	-	-	109	-	-	-	-	-
70 and over	101	-	-	-	-	-	-	-	101	-	-	-	-	-
Not reported	12	-	12	-	12	-	-	-	-	-	-	-	-	-

See Footnotes at end of Table

Table B-19. Number of Employed Scientists and Engineers by Field, Age, and Type of Employer: 1982—continued

Field and Age	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Statisticians	7,080	2,480	2,351	2,312	18	21	85	190	[illegible]	27	400	63	56	57
Under 30	1,084	571	251	251	-	-	-	23	170	9	12	36	12	-
30-34	1,724	500	568	568	-	-	20	54	358	-	154	-	15	36
35-39	1,594	708	405	388	18	-	18	18	321	-	95	9	-	21
40-44	1,217	227	631	631	-	-	-	65	80	18	58	18	10	-
45-49	474	99	208	208	-	-	29	-	119	-	40	-	-	-
50-54	192	72	75	66	-	9	-	-	36	-	9	-	-	-
55-59	315	142	36	36	-	-	-	12	90	-	36	-	-	-
60-64	200	39	47	36	-	12	18	18	42	-	18	-	18	-
65-69	133	18	109	109	-	-	-	-	36	-	-	-	-	-
70 and over	36	18	-	-	-	-	-	-	18	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Computer specialists	[illegible]	133,047	9,559	7,054	1,770	736	1,989	3,158	11,653	283	4,147	2,058	615	2,089
Under 30	32,957	27,356	2,124	1,841	354	129	403	772	706	-	958	187	76	374
30-34	[illegible]	37,144	2,050	2,000	20	36	662	804	1,957	109	1,077	719	86	591
35-39	40,013	31,371	2,146	1,483	544	119	184	736	3,528	20	1,068	404	216	339
40-44	21,436	16,326	955	793	144	18	566	423	2,298	45	351	163	129	177
45-49	13,733	9,693	1,131	625	325	181	94	257	1,646	-	250	259	-	402
50-54	8,632	6,626	452	199	145	109	20	110	678	109	259	148	-	30
55-59	4,236	3,011	435	162	237	36	36	56	421	-	128	108	129	11
60-64	[illegible]	911	151	151	-	-	-	-	197	-	56	70	-	-
65-69	[illegible]	72	109	-	-	109	-	-	-	-	-	-	-	-
70 and over	201	36	-	-	-	-	-	-	-	-	-	-	-	195
Not reported	519	499	-	-	-	-	-	-	20	-	-	-	-	-
Environmental scientists	42,407	26,442	5,329	4,713	616	-	-	376	7,339	152	1,962	181	109	519
Under 30	6,226	4,223	714	703	11	-	-	191	636	52	309	35	-	65
30-34	7,885	5,156	651	651	-	-	-	67	1,409	-	401	54	36	109
35-39	6,079	3,669	655	492	163	-	-	36	1,230	18	337	-	18	94
40-44	3,766	1,531	874	677	197	-	-	20	1,180	36	127	-	18	-
45-49	5,036	2,776	1,148	1,148	-	-	-	-	774	18	226	40	18	36
50-54	5,187	3,361	644	417	227	-	-	18	931	9	195	-	-	29
55-59	5,059	3,666	278	278	-	-	-	8	844	-	131	18	-	113
60-64	2,176	1,300	278	278	-	-	-	35	275	18	218	34	-	18
65-69	569	418	68	50	18	-	-	-	47	-	18	-	-	18
70 and over	390	316	18	18	-	-	-	-	-	-	-	-	18	36
Not reported	14	4	-	-	-	-	-	-	11	-	-	-	-	-
Earth scientists	35,860	24,861	3,937	3,349	588	-	-	121	4,461	-	1,853	111	73	442
Under 30	5,453	4,156	442	431	11	-	-	40	442	-	290	17	-	65
30-34	6,527	4,726	542	542	-	-	-	47	702	-	365	54	-	91
35-39	4,711	3,179	564	401	163	-	-	18	518	-	319	-	18	94
40-44	2,937	1,475	578	381	197	-	-	17	722	-	127	-	18	-
45-49	4,283	2,315	808	808	-	-	-	-	540	-	226	40	18	36
50-54	4,786	3,334	526	308	218	-	-	-	714	-	195	-	-	29
55-59	4,354	3,448	[illegible]	[illegible]	-	-	-	-	572	-	113	-	-	54
60-64	1,867	[illegible]	242	242	-	-	-	-	221	-	200	-	-	18
65-69	515	418	50	50	-	-	-	-	11	-	18	-	-	18
70 and over	390	318	18	18	-	-	-	-	-	-	-	-	18	36
Not reported	14	4	-	-	-	-	-	-	11	-	-	-	-	-
Oceanographers	1,649	353	529	517	9	-	-	45	671	36	-	-	-	18
Under 30	121	18	36	36	-	-	-	21	45	-	-	-	-	-
30-34	313	71	90	90	-	-	-	20	113	-	-	-	-	18
35-39	513	230	54	54	-	-	-	-	229	-	-	-	-	-
40-44	167	-	73	73	-	-	-	4	54	36	-	-	-	-
45-49	206	34	118	118	-	-	-	-	55	-	-	-	-	-
50-54	136	-	118	109	9	-	-	-	18	-	-	-	-	-
55-59	157	-	-	-	-	-	-	-	157	-	-	-	-	-
60-64	36	-	36	36	-	-	-	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atmospheric scientists	4,907	1,229	866	847	18	-	-	209	2,216	115	109	70	36	58
Under 30	652	47	236	236	-	-	-	130	151	22	18	18	-	-
30-34	1,045	360	18	18	-	-	-	-	594	-	36	-	36	-
35-39	655	281	36	36	-	-	-	18	484	18	18	-	-	-
40-44	662	55	223	223	-	-	-	-	403	-	-	-	-	-
45-49	547	127	222	222	-	-	-	-	180	18	-	-	-	-
50-54	252	27	-	-	-	-	-	18	198	9	-	-	-	-
55-59	548	218	112	112	-	-	-	8	115	-	18	18	-	58
60-64	272	113	-	-	-	-	-	35	54	18	18	34	-	-
65-69	54		18	-	18	-	-	-	36	-	-	-	-	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineers	1,060,872	843,962	32,146	27,406	4,070	672	2,066	12,266	70,769	1,010	25,882	21,024	4,036	36,829
Under 30	125,785	105,928	3,660	3,565	85	10	463	666	5,512	592	2,330	1,409	575	4,651
30-34	158,334	130,768	2,771	2,156	507	109	375	1,571	[illegible]	232	3,388	3,822	457	5,017
35-39	161,552	130,241	4,391	4,035	356	-	222	1,848	[illegible]	155	4,366	3,286	345	5,278
40-44	137,022	109,012	4,376	3,801	575	-	221	1,657	10,770	131	3,642	2,616	524	4,067
45-49	125,853	96,578	4,233	3,436	651	146	314	2,376	10,596	246	4,061	2,814	851	3,782
50-54	125,163	97,516	4,809	3,717	1,006	86	86	1,974	10,106	54	2,809	2,766	453	4,591
55-59	123,385	99,743	4,373	3,723	559	90	240	1,196	7,369	177	3,469	2,398	518	3,902
60-64	66,546	55,090	2,305	1,949	283	153	66	563	3,751	34	1,409	1,114	280	1,874
65-69	15,400	11,941	848	737	66	44	66	199	1,074	109	306	427	34	392
70 and over	10,219	6,056	187	153	-	34	-	205	203	68	34	305	-	3,162
Not reported	1,613	1,081	135	135	-	-	-	-	106	34	76	68	-	114

See Footnotes at end of Table

Table B-19. Number of Employed Scientists and Engineers by Field, Age, and Type of Employer: 1982—continued

Field and Age	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Aeronautical / Astronautical	46,007	34,919	1,706	1,672	34	-	-	569	7,152	34	34	211	102	1,281
Under 30	3,573	2,738	340	340	-	-	-	34	376	-	-	-	34	52
30-34	3,803	2,958	10	10	-	-	-	10	657	-	-	-	-	108
35-39	5,135	3,408	277	277	-	-	-	-	1,172	-	-	109	-	170
40-44	4,963	3,581	44	10	34	-	-	131	935	34	-	34	34	170
45-49	7,809	5,957	61	61	-	-	-	188	1,364	-	34	34	-	172
50-54	7,772	5,660	260	260	-	-	-	138	1,476	-	-	-	-	237
55-59	7,796	5,960	537	537	-	-	-	34	687	-	-	-	34	144
60-64	4,239	3,577	143	143	-	-	-	34	383	-	-	34	-	68
65-69	579	443	34	34	-	-	-	-	102	-	-	-	-	-
70 and over	271	203	-	-	-	-	-	-	-	-	-	-	-	68
Not reported	68	34	-	-	-	-	-	-	-	-	-	-	-	34
Chemical	61,277	54,845	1,906	1,671	234	-	-	905	1,485	52	296	195	86	1,430
Under 30	9,647	8,717	371	371	-	-	-	77	179	34	17	-	34	219
30-34	8,543	7,845	70	70	-	-	-	126	238	18	68	-	-	178
35-39	8,081	7,762	430	413	17	-	-	195	139	-	-	109	18	229
40-44	8,560	7,372	285	177	109	-	-	138	308	-	-	18	-	438
45-49	6,331	5,859	177	68	109	-	-	117	102	-	34	-	-	42
50-54	6,527	5,796	376	376	-	-	-	143	136	-	-	-	-	76
55-59	6,565	5,929	-	-	-	-	-	109	264	-	143	34	-	86
60-64	4,810	4,453	88	88	-	-	-	-	102	-	34	34	34	68
65-69	846	846	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	500	297	109	109	-	-	-	-	-	-	-	-	-	94
Not reported	68	68	-	-	-	-	-	-	-	-	-	-	-	-
Civil	145,955	90,486	3,792	3,397	265	129	102	841	13,268	353	17,763	13,501	768	5,112
Under 30	16,573	11,635	432	432	-	-	34	42	1,227	-	1,471	980	131	622
30-34	23,697	15,278	709	548	52	109	-	170	2,241	109	2,035	2,247	177	732
35-39	22,684	14,109	237	219	18	-	-	86	2,430	109	2,880	2,145	34	655
40-44	17,895	11,225	216	172	44	-	-	43	1,973	34	2,509	1,337	34	525
45-49	17,782	8,702	830	830	-	-	-	177	2,059	68	3,309	2,036	96	506
50-54	16,036	9,288	322	171	151	-	-	34	1,626	-	2,214	1,935	86	531
55-59	17,062	10,601	475	465	-	10	34	102	860	-	2,486	[illegible]	211	577
60-64	8,559	5,826	310	310	-	-	34	120	541	-	739	594	-	395
65-69	2,906	2,031	262	252	-	10	-	-	190	-	120	271	-	34
70 and over	2,564	1,666	-	-	-	-	-	68	102	34	-	203	-	491
Not reported	196	96	-	-	-	-	-	-	20	-	-	34	-	46
Electrical / Electronic	245,781	200,359	7,511	6,492	975	44	273	4,018	20,990	503	1,000	1,821	814	8,493
Under 30	31,129	26,445	771	757	14	-	63	139	1,542	202	154	52	221	1,540
30-34	37,684	31,871	593	549	44	-	143	584	2,661	59	86	357	34	1,276
35-39	39,769	33,901	653	601	52	-	-	542	3,201	34	88	253	136	962
40-44	33,930	27,113	1,149	1,065	84	-	34	692	3,428	18	184	306	141	864
45-49	29,687	23,238	891	652	239	-	34	612	3,662	68	68	136	52	928
50-54	31,585	24,954	1,600	1,386	180	34	-	486	2,983	54	10	443	52	1,002
55-59	26,426	20,978	1,216	954	252	10	-	663	2,194	34	200	120	102	920
60-64	11,258	9,065	428	318	110	-	-	188	1,016	-	177	86	42	255
65-69	2,194	1,686	177	177	-	-	-	12	215	-	-	-	34	68
70 and over	1,735	855	-	-	-	-	-	101	68	-	-	34	-	677
Not reported	366	230	34	34	-	-	-	-	-	34	34	34	-	-
Industrial	67,937	60,664	1,171	1,026	145	-	435	397	2,437	50	162	504	71	2,065
Under 30	8,104	7,536	37	37	-	-	162	68	123	44	-	8	3	120
30-34	10,748	9,610	45	36	8	-	62	68	467	6	42	34	-	412
35-39	11,957	10,476	505	487	18	-	34	-	298	-	34	143	-	468
40-44	9,553	8,404	218	218	-	-	143	109	374	-	-	-	-	305
45-49	8,757	8,042	68	68	-	-	-	34	231	-	-	109	-	273
50-54	7,484	6,412	109	-	109	-	34	109	456	-	-	109	-	246
55-59	6,625	5,950	112	112	-	-	-	-	357	-	18	34	34	120
60-64	3,613	3,348	78	68	10	-	-	-	[illegible]	-	34	34	34	-
65-69	492	482	-	-	-	-	-	10	-	-	-	-	-	-
70 and over	360	182	-	-	-	-	-	-	-	-	34	34	-	110
Not reported	244	211	-	-	-	-	-	-	34	-	-	-	-	-
Materials	22,886	19,161	1,670	1,652	18	-	-	214	1,220	-	71	34	127	368
Under 30	2,325	1,765	405	405	-	-	-	-	102	-	3	-	-	50
30-34	3,044	2,556	109	109	-	-	-	34	236	-	-	-	109	-
35-39	3,962	3,547	161	161	-	-	-	52	68	-	34	-	-	101
40-44	3,255	2,585	371	353	18	-	-	34	247	-	-	-	18	-
45-49	2,326	1,843	218	218	-	-	-	34	110	-	-	34	-	89
50-54	2,566	2,121	201	201	-	-	-	-	211	-	34	-	-	-
55-59	3,133	2,784	161	161	-	-	-	42	78	-	-	-	-	68
60-64	1,954	1,774	-	-	-	-	-	18	102	-	-	-	-	60
65-69	299	197	34	34	-	-	-	-	68	-	-	-	-	-
70 and over	10	-	10	10	-	-	-	-	-	-	-	-	-	-
Not reported	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Mechanical	206,943	179,611	7,136	5,210	1,671	255	409	1,906	9,587	170	652	1,152	424	5,896
Under 30	22,785	20,467	480	436	34	10	34	8	755	34	42	86	68	810
30-34	27,819	24,723	483	231	252	-	102	255	1,251	34	-	154	34	785
35-39	28,441	24,709	842	842	-	-	102	438	1,459	-	88	79	22	702
40-44	27,977	24,182	1,105	888	218	-	-	297	1,443	-	70	408	52	420
45-49	25,204	21,917	1,028	691	304	34	-	256	1,101	34	111	81	78	601
50-54	23,817	20,017	927	499	428	-	18	482	1,436	-	52	64	33	785
55-59	27,917	24,337	1,150	856	260	34	120	68	1,394	34	52	102	-	661
60-64	16,827	14,709	791	540	143	109	-	102	492	-	138	44	138	417
65-69	3,852	2,905	263	195	34	34	34	-	237	-	102	102	-	211
70 and over	2,029	1,423	68	34	-	34	-	-	-	34	-	34	-	470
Not reported	274	222	-	-	-	-	-	-	18	-	-	-	-	34

See Footnotes at end of Table

Table B-19. Number of Employed Scientists and Engineers by Field, Age, and Type of Employer: 1982—continued

Field and Age	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges & univ.	2-year colleges	Elem. & sec. schools								
Mining	7,335	6,248	311	303	8	-	-	109	307	-	158	52	34	114
Under 30	1,506	1,412	-	-	-	-	-	-	76	-	18	-	-	-
30-34	1,313	1,149	60	52	8	-	-	-	18	-	52	-	34	-
35-39	899	854	34	34	-	-	-	-	11	-	-	-	-	-
40-44	578	566	-	-	-	-	-	-	12	-	-	-	-	-
45-49	344	235	109	109	-	-	-	-	-	-	-	-	-	-
50-54	684	577	-	-	-	-	-	-	70	-	36	-	-	-
55-59	947	763	-	-	-	-	-	-	120	-	-	18	-	48
60-64	729	552	109	109	-	-	-	-	-	-	34	34	-	-
65-69	231	70	-	-	-	-	-	109	-	-	18	-	-	34
70 and over	104	70	-	-	-	-	-	-	-	-	-	-	-	34
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	9,657	6,771	203	203	-	-	34	207	1,725	-	18	109	177	414
Under 30	1,322	999	34	34	-	-	34	67	120	-	-	-	-	68
30-34	1,800	1,294	34	34	-	-	-	18	353	-	-	-	34	68
35-39	2,153	1,463	68	68	-	-	-	18	570	-	-	-	-	34
40-44	1,547	1,136	34	34	-	-	-	34	148	-	18	109	34	34
45-49	984	500	34	34	-	-	-	36	271	-	-	-	109	34
50-54	837	701	-	-	-	-	-	34	102	-	-	-	-	-
55-59	606	371	-	-	-	-	-	-	92	-	-	-	-	143
60-64	355	254	-	-	-	-	-	-	68	-	-	-	-	34
65-69	34	34	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	18	18	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	14,185	12,256	66	66	-	-	-	109	379	-	211	-	143	1,008
Under 30	2,921	2,712	8	8	-	-	-	-	10	-	-	-	34	156
30-34	1,828	1,700	-	-	-	-	-	-	42	-	-	-	-	86
35-39	1,357	1,059	-	-	-	-	-	-	10	-	109	-	-	179
40-44	903	765	12	12	-	-	-	-	18	-	-	-	-	109
45-49	1,645	1,328	-	-	-	-	-	109	34	-	34	-	109	34
50-54	2,181	1,867	-	-	-	-	-	-	138	-	-	-	-	177
55-59	1,754	1,493	34	34	-	-	-	-	58	-	34	-	-	136
60-64	1,203	1,033	-	-	-	-	-	-	68	-	34	-	-	68
65-69	225	213	12	12	-	-	-	-	-	-	-	-	-	-
70 and over	114	52	-	-	-	-	-	-	-	-	-	-	-	62
Not reported	34	34	-	-	-	-	-	-	-	-	-	-	-	-
Other	222,930	178,557	6,677	5,714	719	244	803	2,981	12,240	746	5,528	3,446	1,292	10,660
Under 30	25,900	21,499	783	746	37	-	137	231	1,001	278	626	283	50	1,012
30-34	38,055	31,765	659	516	143	-	68	306	1,718	34	1,105	1,030	36	1,313
35-39	36,314	28,953	1,185	934	251	-	86	516	2,026	52	1,134	449	136	1,778
40-44	27,860	22,083	941	873	68	-	44	180	1,882	52	860	404	211	1,204
45-49	24,982	18,959	818	706	-	112	280	814	1,683	78	472	385	409	1,104
50-54	25,674	20,122	1,013	823	139	52	34	549	1,463	-	463	214	278	1,537
55-59	24,554	20,177	689	605	48	36	86	180	1,264	109	537	373	136	1,002
60-64	12,981	10,479	420	376	-	44	34	102	894	34	222	254	34	509
65-69	3,741	3,033	68	34	34	-	34	68	262	109	68	54	-	46
70 and over	2,514	1,289	-	-	-	-	-	36	34	-	-	-	-	1,155
Not reported	356	179	101	101	-	-	-	-	34	-	42	-	-	-
Life scientists	137,483	45,886	52,320	47,134	4,719	467	3,649	3,927	18,232	367	9,124	2,028	360	1,600
Under 30	17,604	7,239	5,622	5,466	127	29	135	402	2,294	10	1,279	291	31	302
30-34	23,632	9,966	5,775	5,247	497	31	727	712	3,713	-	2,215	380	21	122
35-39	25,220	7,902	8,922	7,967	838	117	580	756	3,694	55	2,191	712	140	288
40-44	18,750	5,539	8,620	7,872	619	128	650	189	2,056	119	1,185	54	43	297
45-49	13,706	3,103	6,532	5,442	1,069	21	395	697	1,900	141	726	150	-	62
50-54	15,919	5,243	7,214	6,512	693	10	341	115	2,187	42	459	241	21	54
55-59	12,529	3,966	5,077	4,623	345	109	343	550	1,711	-	662	10	104	86
60-64	6,622	2,105	3,015	2,504	512	-	230	282	478	-	243	52	-	218
65-69	2,075	491	1,169	1,137	10	21	130	21	102	-	9	-	-	152
70 and over	1,279	313	351	341	10	-	119	203	55	-	90	138	-	10
Not reported	146	10	21	21	-	-	-	-	41	-	64	-	-	10
Biologists	82,303	27,182	31,235	26,989	4,141	105	1,454	2,241	14,131	193	6,197	1,478	213	982
Under 30	12,486	4,909	3,750	3,614	117	20	96	231	2,034	10	1,036	248	10	162
30-34	13,964	7,369	3,497	3,138	337	21	306	412	3,204	-	1,715	359	21	81
35-39	16,774	4,804	5,859	5,148	710	-	291	521	3,003	34	1,410	582	130	140
40-44	10,717	2,354	5,436	4,849	576	11	231	117	1,547	10	745	10	12	256
45-49	8,566	1,450	4,324	3,267	1,036	21	140	623	1,443	120	310	118	-	41
50-54	8,352	2,289	3,806	3,135	662	10	117	106	1,621	20	274	99	-	21
55-59	6,264	2,509	2,119	1,818	302	-	145	161	886	-	351	10	39	43
60-64	3,672	1,020	1,788	1,406	381	-	128	31	254	-	202	31	-	218
65-69	881	306	522	491	10	21	-	-	53	-	-	-	-	-
70 and over	490	162	112	102	10	-	-	40	55	-	90	21	-	10
Not reported	137	10	21	21	-	-	-	-	31	-	64	-	-	10
Biochemists	9,629	2,626	5,210	5,192	18	-	496	393	726	-	112	-	-	62
Under 30	776	173	583	583	-	-	20	-	-	-	-	-	-	-
30-34	1,557	475	799	799	-	-	31	113	117	-	21	-	-	-
35-39	2,012	740	1,069	1,060	9	-	12	59	113	-	10	-	-	10
40-44	1,522	504	740	740	-	-	92	20	136	-	21	-	-	10
45-49	1,150	280	685	685	-	-	55	31	38	-	40	-	-	21
50-54	978	195	552	543	9	-	79	9	142	-	-	-	-	-
55-59	980	150	380	380	-	-	106	140	161	-	20	-	-	21
60-64	327	109	107	107	-	-	80	21	9	-	-	-	-	-
65-69	218	-	186	186	-	-	21	-	10	-	-	-	-	-
70 and over	109	-	109	109	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Footnotes at end of Table

Table B-19. Number of Employed Scientists and Engineers by Field, Age, and Type of Employer: 1982—continued

Field and Age	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Agricultural scientists	27,836	12,853	8,418	7,643	540	236	-	802	2,520	-	2,567	342	125	303
Under 30	3,486	1,764	1,017	997	10	10	-	161	250	-	242	21	21	10
30-34	3,352	1,621	771	611	160	-	-	158	299	-	460	21	-	21
35-39	4,318	1,995	788	562	109	117	-	119	447	-	743	109	9	109
40-44	4,038	2,241	1,143	1,100	43	-	-	10	302	-	310	21	9	-
45-49	2,610	1,131	747	714	33	-	-	12	321	-	368	32	-	-
50-54	5,000	2,433	1,948	1,927	21	-	-	-	311	-	133	143	21	12
55-59	2,997	799	1,323	1,184	33	109	-	109	396	-	282	-	64	21
60-64	1,408	686	506	375	130	-	-	12	172	-	31	-	-	-
65-69	389	152	64	64	-	-	-	21	21	-	-	-	-	130
70 and over	239	130	109	109	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medical scientists	14,715	3,137	7,456	7,319	20	127	1,706	692	[illegible]	173	248	203	21	232
Under 30	856	393	272	272	-	-	20	10	10	-	-	21	-	130
30-34	1,760	501	708	699	-	10	390	30	92	-	20	-	-	19
35-39	2,116	362	1,207	1,197	10	-	277	57	131	21	29	22	-	10
40-44	2,474	440	1,300	1,183	-	117	327	43	72	109	109	22	21	31
45-49	1,377	242	776	776	-	-	199	31	98	21	9	-	-	-
50-54	1,589	327	906	906	-	-	145	-	114	21	53	-	-	21
55-59	2,288	526	1,252	1,243	10	-	99	140	268	-	10	-	-	-
60-64	1,215	287	615	615	-	-	21	216	43	-	10	21	-	-
65-69	587	34	396	396	-	-	109	-	18	-	9	-	-	21
70 and over	441	21	21	21	-	-	119	163	-	-	-	117	-	-
Not reported	10	-	-	-	-	-	-	-	10	-	-	-	-	-
Psychologists	84,140	23,222	36,772	21,486	3,240	12,046	10,964	4,919	1,527	270	2,743	1,823	456	1,454
Under 30	7,058	1,761	2,896	1,762	180	954	806	727	136	21	180	64	163	304
30-34	17,419	3,963	7,631	4,099	525	3,006	2,680	1,606	258	54	943	250	-	54
35-39	17,365	5,029	6,294	3,799	524	1,971	3,017	1,253	225	126	369	639	184	227
40-44	12,611	3,286	5,989	3,759	693	1,536	1,419	328	272	-	544	400	-	364
45-49	9,039	2,880	4,112	1,751	736	1,625	1,052	127	128	64	385	172	-	118
50-54	9,992	2,796	4,984	3,139	473	1,372	694	641	420	3	110	227	-	117
55-59	5,630	1,931	2,390	1,415	109	866	951	-	14	-	31	73	109	132
60-64	3,395	1,057	1,771	1,309	-	462	182	182	64	-	118	-	-	21
65-69	846	283	434	302	-	132	-	54	11	-	64	-	-	-
70 and over	461	128	54	-	-	54	163	-	-	-	-	-	-	117
Not reported	324	108	216	152	-	64	-	-	-	-	-	-	-	-
Social scientists	116,100	44,702	41,361	36,769	4,136	456	3,007	7,578	8,225	36	4,203	3,287	1,532	2,168
Under 30	11,308	4,229	2,926	2,479	325	122	696	724	1,066	-	364	1,104	20	179
30-34	20,732	7,671	6,806	6,235	404	167	664	1,830	1,783	24	935	470	312	217
35-39	23,951	9,337	7,926	7,003	890	33	822	2,156	1,720	12	735	532	407	303
40-44	19,693	6,567	7,765	6,847	918	-	231	819	1,520	-	1,115	473	383	819
45-49	10,627	4,287	3,648	3,201	421	26	75	623	904	-	471	309	166	145
50-54	11,079	5,202	3,847	3,592	255	-	327	615	440	-	359	15	83	191
55-59	8,724	3,767	3,553	2,928	517	108	54	350	447	-	[illegible]	167	86	123
60-64	5,574	1,759	3,067	2,673	394	-	109	285	255	-	36	-	51	12
65-69	2,860	937	1,402	1,390	12	-	-	34	78	-	12	218	12	168
70 and over	1,267	721	370	370	-	-	-	141	12	-	-	-	12	12
Not reported	286	226	51	51	-	-	9	-	-	-	-	-	-	-
Economists	46,965	23,332	13,320	11,941	1,379	-	151	1,352	5,285	12	835	180	1,279	1,241
Under 30	4,191	1,955	1,151	841	309	-	-	268	608	-	121	42	20	27
30-34	7,229	2,984	2,089	2,065	24	-	20	356	1,073	12	217	52	275	151
35-39	9,711	5,140	2,395	2,130	265	-	23	346	1,073	-	206	24	332	171
40-44	7,365	3,278	2,019	1,885	134	-	-	74	996	-	120	15	274	580
45-49	4,753	2,741	980	944	36	-	-	24	707	-	24	12	144	121
50-54	4,918	3,282	980	856	124	-	-	36	336	-	58	-	83	143
55-59	3,942	1,913	1,546	1,309	238	-	-	24	302	-	53	15	75	15
60-64	2,850	1,046	1,328	1,078	250	-	109	168	112	-	24	-	51	12
65-69	1,506	598	784	784	-	-	-	34	66	-	12	-	12	-
70 and over	381	285	36	36	-	-	-	24	12	-	-	-	12	12
Not reported	121	109	12	12	-	-	-	-	-	-	-	-	-	-
Sociologists / anthropologists	22,993	7,540	10,801	9,757	990	153	378	1,843	814	-	875	207	184	483
Under 30	1,668	606	590	575	15	-	11	108	198	-	15	141	-	-
30-34	4,959	1,592	2,393	2,149	132	113	117	444	144	-	222	24	-	24
35-39	5,545	2,279	1,910	1,560	335	15	132	641	116	-	244	30	75	117
40-44	4,570	1,224	2,498	2,308	190	-	-	299	166	-	151	-	109	121
45-49	1,429	430	819	755	39	26	-	12	87	-	45	12	-	24
50-54	1,936	305	1,158	1,147	12	-	118	139	33	-	183	-	-	-
55-59	1,867	733	1,073	818	255	-	-	-	46	-	15	-	-	-
60-64	411	133	256	244	12	-	-	-	22	-	-	-	-	-
65-69	344	12	163	163	-	-	-	-	-	-	-	-	-	168
70 and over	109	109	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	156	117	39	39	-	-	-	-	-	-	-	-	-	-
Other social scientists	46,142	13,830	17,141	15,072	1,767	303	2,478	4,582	2,127	24	2,494	2,921	70	474
Under 30	5,449	1,668	1,185	1,063	-	122	686	349	260	-	228	921	-	152
30-34	8,544	3,095	2,324	2,021	248	54	547	1,031	586	12	496	394	35	42
35-39	8,695	1,918	3,621	3,313	289	18	687	1,169	531	12	285	478	-	15
40-44	7,758	2,066	3,248	2,653	595	-	231	446	356	-	844	459	-	109
45-49	4,446	1,117	1,848	1,502	346	-	75	587	110	-	402	285	21	-
50-54	4,224	1,614	1,709	1,589	119	-	209	440	71	-	118	15	-	48
55-59	2,914	1,120	934	802	24	108	54	326	100	-	109	152	11	109
60-64	2,313	580	1,483	1,351	133	-	-	117	121	-	12	-	-	-
65-69	1,011	326	455	443	12	-	-	-	12	-	-	218	-	-
70 and over	778	326	335	335	-	-	-	117	-	-	-	-	-	-
Not reported	9	-	-	-	-	-	9	-	-	-	-	-	-	-

NOTE: Detail may not add to total due to rounding.

Source: National Science Foundation.

Table B-20. Number of Employed Scientists and Engineers by Field, Sex, and Race: 1982

Field	Both sexes					Male					Female				
	Total	White	Black	Asian	Other[1]	Total	White	Black	Asian	Other[1]	Total	White	Black	Asian	Other[1]
Total, all fields	1,758,344	1,606,064	38,346	86,997	27,937	1,596,067	1,464,391	29,637	78,802	23,238	161,277	141,673	8,709	8,195	2,700
Physical scientists	115,821	104,202	2,595	7,129	1,895	104,673	94,903	2,149	5,783	1,838	11,148	9,299	446	1,346	57
Chemists	78,028	69,177	2,136	5,695	1,021	68,873	61,812	1,699	4,398	964	9,155	7,364	437	1,297	57
Physicists / astronomers	25,802	23,860	330	1,081	531	24,410	22,517	321	1,041	531	1,392	1,343	9	39	-
Other physical scientists	11,991	11,165	130	353	343	11,390	10,574	130	343	343	601	592	-	9	-
Mathematicl. scientists	43,944	39,450	1,404	2,333	758	35,893	32,578	867	2,022	426	8,051	6,872	537	311	332
Mathemtcns.	36,945	33,282	1,202	1,892	568	30,900	28,000	793	1,719	388	6,044	5,281	409	173	180
Statisticians	7,000	6,168	202	440	189	4,993	4,578	74	303	38	2,007	1,590	128	137	152
Computer specists.	168,578	152,161	5,604	7,944	2,869	132,139	120,203	3,443	6,107	2,387	36,438	31,958	2,161	1,838	482
Environml. scientists	42,407	40,772	325	900	410	39,341	37,827	282	854	378	3,066	2,946	43	45	32
Earth scientists	35,851	34,668	248	616	318	33,280	32,187	226	581	286	2,571	2,481	22	35	32
Oceanographers	1,649	1,535	33	9	73	1,466	1,352	33	9	73	183	183	-	-	-
Atmospheric scientists	4,907	4,568	45	275	20	4,595	4,287	23	265	20	312	281	21	10	-
Engineers	1,050,872	955,972	17,697	59,445	17,758	1,027,135	935,946	16,382	57,460	17,347	23,737	20,026	1,315	1,985	410
Aeronautical / astronautical	46,007	43,070	639	1,790	508	45,158	42,317	608	1,744	489	849	753	31	46	19
Chemical	61,277	54,906	485	4,955	931	58,849	52,875	443	4,659	871	2,428	2,031	41	296	60
Civil	145,955	128,475	2,128	12,186	3,166	143,655	126,533	2,066	11,944	3,111	2,301	1,942	62	242	55
Electrical / electronic	245,781	220,133	5,714	16,109	3,825	242,350	217,455	5,551	15,580	3,763	3,432	2,678	163	529	62
Industrial	67,937	64,322	1,061	1,947	607	65,926	62,522	935	1,892	577	2,011	1,800	126	55	30
Materials	22,886	20,653	184	1,790	258	22,321	20,164	164	1,735	258	565	489	21	56	-
Mechanical	206,943	190,240	2,262	10,888	3,553	203,411	187,181	2,058	10,636	3,536	3,532	3,059	204	252	17
Mining	7,334	7,033	28	109	163	7,228	6,927	28	109	163	107	107	-	-	-
Nuclear	9,657	8,705	82	730	141	9,520	8,577	82	720	141	137	128	-	9	-
Petroleum	14,165	13,200	139	302	524	13,782	12,846	129	283	524	383	354	10	19	-
Other	222,930	205,235	4,975	8,638	4,082	214,937	198,548	4,318	8,156	3,914	7,993	6,686	657	482	168
Life scientists	137,483	128,056	2,542	5,197	1,688	114,432	107,911	1,745	3,636	1,140	23,051	20,145	796	1,561	548
Biologists	85,306	79,939	2,079	2,418	871	69,956	66,664	1,372	1,550	371	15,350	13,275	707	868	500
Biochemists	9,626	8,519	121	910	76	7,567	6,687	99	705	76	2,059	1,832	22	205	-
Agricultural scientists	27,836	26,005	228	1,157	446	25,867	24,321	206	894	446	1,970	1,684	22	263	-
Medical scientists	14,715	13,594	114	712	295	11,042	10,239	69	487	247	3,672	3,354	45	225	48
Psychologists	84,140	79,870	2,672	777	821	53,934	51,539	1,241	489	665	30,205	28,331	1,430	288	156
Social scientists	116,100	105,581	5,507	3,273	1,739	90,519	83,484	3,527	2,451	1,057	25,581	22,098	1,980	822	682
Economists	46,965	43,853	735	1,907	470	42,339	39,805	577	1,503	455	4,626	4,048	158	405	15
Sociologists / anthropigsts.	22,993	20,564	1,513	425	492	14,646	12,771	1,254	246	375	8,347	7,792	259	179	117
Other social scientists	46,142	41,164	3,260	941	777	33,534	30,908	1,696	702	227	12,608	10,256	1,564	238	550

NOTE: Detail may not add to total due to rounding.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-21. Number of Female Scientists and Engineers by Field, Highest Degree, and Employment Status: 1982

Field and Highest Degree	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Total, all fields	**182,885**	**161,277**	**139,086**	**22,191**	**139,532**	**119,514**	**20,017**	**21,746**	**19,572**	**2,174**	**6,397**	**15,211**	**2,799**	**12,412**
Doctorate	37,914	35,049	33,412	1,637	30,000	29,055	945	5,049	4,357	692	1,037	1,829	733	1,096
Professional/medical	756	753	480	273	715	472	244	38	8	29	-	3	-	3
Master's	64,900	55,565	48,877	6,689	44,372	38,447	5,924	11,194	10,429	764	3,048	6,287	1,515	4,772
Bachelor's	75,696	66,589	53,064	13,525	61,163	48,318	12,845	5,426	4,746	680	2,133	6,975	501	6,473
Associate	634	599	590	8	599	590	8	-	-	-	27	8	8	-
Other	28	28	28	-	28	28	-	-	-	-	-	-	-	-
No degree	2,957	2,695	2,636	59	2,656	2,605	51	39	31	8	153	110	41	69
Physical scientists	**13,499**	**11,148**	**10,709**	**439**	**9,742**	**9,319**	**423**	**1,406**	**1,389**	**17**	**690**	**1,661**	**489**	**1,172**
Doctorate	3,035	2,733	2,667	66	2,342	2,293	50	391	374	17	43	259	113	146
Professional/medical	9	9	9	-	9	9	-	-	-	-	-	-	-	-
Master's	4,417	3,457	3,324	134	2,793	2,659	134	665	665	-	325	635	230	405
Bachelor's	6,038	4,949	4,709	240	4,598	4,358	240	351	351	-	322	767	146	621
Chemists	**11,000**	**9,155**	**8,740**	**415**	**8,148**	**7,750**	**398**	**1,007**	**991**	**17**	**550**	**1,295**	**488**	**807**
Doctorate	2,034	1,847	1,791	57	1,619	1,579	40	229	212	17	40	146	113	33
Professional/medical	9	9	9	-	9	9	-	-	-	-	-	-	-	-
Master's	3,587	2,856	2,723	134	2,378	2,245	134	478	478	-	313	417	230	188
Bachelor's	5,371	4,443	4,218	225	4,142	3,917	225	301	301	-	196	732	146	586
Physicists / astronomers	**1,847**	**1,392**	**1,377**	**15**	**1,070**	**1,055**	**15**	**322**	**322**	-	**117**	**338**	-	**338**
Doctorate	879	767	767	-	605	605	-	162	162	-	-	113	-	113
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	624	407	407	-	264	264	-	143	143	-	-	217	-	217
Bachelor's	343	218	203	15	202	187	15	17	17	-	117	8	-	8
Other physical scientists	**652**	**601**	**592**	**9**	**524**	**515**	**9**	**77**	**77**	-	**23**	**27**	-	**27**
Doctorate	122	119	110	9	119	110	9	-	-	-	3	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	206	194	194	-	150	150	-	44	44	-	12	-	-	-
Bachelor's	324	288	288	-	254	254	-	33	33	-	9	27	-	27
Mathematical scientists	**9,625**	**8,051**	**7,018**	**1,033**	**6,983**	**6,080**	**903**	**1,069**	**938**	**131**	**351**	**1,223**	**438**	**785**
Doctorate	1,872	1,572	1,553	18	1,446	1,428	18	126	126	-	147	153	135	18
Professional/medical	12	12	12	-	12	12	-	-	-	-	-	-	-	-
Master's	4,788	3,912	3,498	414	3,204	2,921	283	708	577	131	168	709	273	435
Bachelor's	2,953	2,556	1,955	601	2,322	1,720	601	235	235	-	38	361	30	331
Mathematicians	**7,414**	**6,044**	**5,361**	**683**	**5,324**	**4,772**	**552**	**720**	**589**	**131**	**342**	**1,028**	**408**	**620**
Doctorate	1,497	1,197	1,178	18	1,125	1,107	18	71	71	-	147	153	135	18
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	3,554	2,851	2,588	264	2,383	2,250	133	468	338	131	159	544	255	289
Bachelor's	2,363	1,996	1,595	401	1,816	1,415	401	180	180	-	36	331	18	313
Statisticians	**2,211**	**2,007**	**1,657**	**350**	**1,658**	**1,308**	**350**	**349**	**349**	-	**9**	**195**	**30**	**165**
Doctorate	375	375	375	-	321	321	-	54	54	-	-	-	-	-
Professional/medical	12	12	12	-	12	12	-	-	-	-	-	-	-	-
Master's	1,235	1,060	910	150	821	670	150	240	240	-	9	165	18	147
Bachelor's	590	560	360	200	505	305	200	55	55	-	-	30	12	18
Computer specialists	**39,383**	**36,438**	**26,635**	**9,803**	**33,808**	**24,452**	**9,356**	**2,630**	**2,383**	**247**	**361**	**2,583**	-	**2,583**
Doctorate	761	749	714	35	749	714	35	-	-	-	-	12	-	12
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	8,636	8,139	6,535	1,604	7,493	5,928	1,565	646	607	39	125	372	-	372
Bachelor's	29,986	27,550	19,586	7,964	25,566	17,810	7,756	1,984	1,776	208	236	2,180	-	2,180
Environmental scientists	**3,344**	**3,066**	**3,040**	**26**	**2,711**	**2,696**	**15**	**355**	**344**	**11**	**92**	**186**	-	**186**
Doctorate	522	511	511	-	391	391	-	120	120	-	11	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	1,330	1,185	1,185	-	1,080	1,080	-	105	105	-	63	81	-	81
Bachelor's	1,492	1,370	1,344	26	1,240	1,225	15	130	119	11	18	105	-	105
Earth scientists	**2,830**	**2,571**	**2,545**	**26**	**2,249**	**2,234**	**15**	**321**	**311**	**11**	**92**	**168**	-	**168**
Doctorate	368	358	358	-	241	241	-	117	117	-	11	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	1,169	1,043	1,043	-	965	965	-	77	77	-	63	63	-	63
Bachelor's	1,293	1,170	1,144	26	1,043	1,028	15	127	116	11	18	105	-	105
Oceanographers	**183**	**183**	**183**	-	**169**	**169**	-	**14**	**14**	-	-	-	-	-
Doctorate	24	24	24	-	20	20	-	4	4	-	-	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	32	32	32	-	21	21	-	11	11	-	-	-	-	-
Bachelor's	127	127	127	-	127	127	-	-	-	-	-	-	-	-
Atmospheric scientists	**331**	**312**	**312**	-	**293**	**293**	-	**19**	**19**	-	-	**19**	-	**19**
Doctorate	130	130	130	-	130	130	-	-	-	-	-	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	129	111	111	-	94	94	-	17	17	-	-	19	-	19
Bachelor's	72	72	72	-	69	69	-	3	3	-	-	-	-	-

See Footnotes at end of Table

Table B-21. Number of Female Scientists and Engineers by Field, Highest Degree, and Employment Status: 1982—continued

Field and Highest Degree	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Engineers	**27,134**	**23,737**	**22,733**	**1,004**	**22,464**	**21,630**	**834**	**1,282**	**1,112**	**170**	**1,264**	**2,164**	**248**	**1,906**
Doctorate	930	871	871	-	718	718	-	153	153	-	17	43	17	26
Professional/medical	46	46	46	-	37	37	-	8	8	-	-	3	-	3
Master's	5,906	5,261	5,063	196	4,793	4,595	196	468	468	-	322	325	8	317
Bachelor's	16,649	14,236	13,500	736	13,624	13,047	577	614	453	161	745	1,666	174	1,492
Associate	634	599	590	8	599	590	8	-	-	-	27	8	8	-
Other	26	26	26	-	26	26	-	-	-	-	-	-	-	-
No degree	2,957	2,695	2,636	59	2,656	2,605	51	39	31	8	153	110	41	68
Aeronautical / Astronautical	**907**	**849**	**839**	**10**	**712**	**702**	**10**	**138**	**138**	**-**	**33**	**25**	**8**	**17**
Doctorate	80	80	80	-	80	80	-	-	-	-	-	-	-	-
Professional/medical	8	8	8	-	8	8	-	-	-	-	-	-	-	-
Master's	259	251	251	-	138	138	-	113	113	-	-	8	-	8
Bachelor's	459	425	415	10	401	390	10	25	25	-	17	17	8	8
Associate	17	17	17	-	17	17	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	85	68	68	-	68	68	-	-	-	-	17	-	-	-
Chemical	**3,204**	**2,428**	**2,321**	**107**	**2,231**	**2,133**	**99**	**197**	**188**	**8**	**223**	**553**	**8**	**545**
Doctorate	96	86	86	-	86	86	-	-	-	-	-	9	-	9
Professional/medical	19	19	19	-	10	10	-	8	8	-	-	-	-	-
Master's	631	428	412	17	403	387	17	25	25	-	150	53	-	53
Bachelor's	2,401	1,845	1,763	82	1,690	1,608	82	155	155	-	65	491	8	483
Associate	8	8	8	-	8	8	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	50	41	33	8	33	33	-	8	-	8	8	-	-	-
Civil	**2,673**	**2,301**	**2,267**	**34**	**2,236**	**2,202**	**34**	**65**	**65**	**-**	**116**	**256**	**25**	**231**
Doctorate	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional/medical	3	-	-	-	-	-	-	-	-	-	-	3	-	3
Master's	563	509	509	-	497	497	-	12	12	-	8	46	8	37
Bachelor's	1,837	1,563	1,537	26	1,519	1,493	26	44	44	-	75	199	8	191
Associate	86	78	70	8	78	70	8	-	-	-	8	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	183	150	150	-	142	142	-	8	8	-	25	8	8	-
Electrical / Electronic	**3,963**	**3,432**	**3,289**	**143**	**3,339**	**3,197**	**143**	**92**	**92**	**-**	**264**	**268**	**-**	**268**
Doctorate	203	186	186	-	186	186	-	-	-	-	8	8	-	8
Professional/medical	8	8	8	-	8	8	-	-	-	-	-	-	-	-
Master's	719	666	666	-	632	632	-	34	34	-	27	26	-	26
Bachelor's	2,488	2,078	1,936	143	2,020	1,878	143	58	58	-	176	234	-	234
Associate	116	106	106	-	106	106	-	-	-	-	10	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	429	387	387	-	387	387	-	-	-	-	42	-	-	-
Industrial	**2,319**	**2,011**	**1,963**	**48**	**1,960**	**1,915**	**45**	**51**	**48**	**3**	**99**	**206**	**8**	**198**
Doctorate	17	17	17	-	17	17	-	-	-	-	-	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	351	239	230	8	229	221	8	9	9	-	-	113	-	113
Bachelor's	1,490	1,333	1,302	31	1,294	1,266	29	39	36	3	96	60	-	60
Associate	63	63	63	-	63	63	-	-	-	-	-	-	-	-
Other	8	8	8	-	8	8	-	-	-	-	-	-	-	-
No degree	387	352	343	8	349	340	8	3	3	-	3	33	8	25
Materials	**770**	**565**	**556**	**9**	**565**	**556**	**9**	**-**	**-**	**-**	**155**	**50**	**-**	**50**
Doctorate	45	36	36	-	36	36	-	-	-	-	8	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	256	102	92	9	102	92	9	-	-	-	113	42	-	42
Bachelor's	411	377	377	-	377	377	-	-	-	-	26	8	-	8
Associate	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	58	50	50	-	50	50	-	-	-	-	8	-	-	-
Mechanical	**3,847**	**3,532**	**3,262**	**270**	**3,088**	**2,960**	**138**	**444**	**312**	**132**	**88**	**228**	**17**	**211**
Doctorate	184	175	175	-	42	42	-	133	133	-	-	8	-	8
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	845	837	829	8	694	686	8	143	143	-	-	8	-	8
Bachelor's	2,309	2,019	1,766	253	1,851	1,730	121	168	36	132	80	211	17	194
Associate	105	97	97	-	97	97	-	-	-	-	8	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	404	404	396	8	404	396	8	-	-	-	-	-	-	-
Mining	**219**	**107**	**107**	**-**	**99**	**99**	**-**	**8**	**8**	**-**	**-**	**113**	**113**	**-**
Doctorate	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	3	3	3	-	3	3	-	-	-	-	-	-	-	-
Bachelor's	214	101	101	-	93	93	-	8	8	-	-	113	113	-
Associate	3	3	3	-	3	3	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	**173**	**137**	**137**	**-**	**137**	**137**	**-**	**-**	**-**	**-**	**8**	**28**	**-**	**28**
Doctorate	8	8	8	-	8	8	-	-	-	-	-	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	71	62	62	-	62	62	-	-	-	-	-	3	-	8
Bachelor's	86	66	66	-	66	66	-	-	-	-	-	19	-	19
Associate	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	8	-	-	-	-	-	-	-	-	-	8	-	-	-
Petroleum	**391**	**383**	**383**	**-**	**358**	**358**	**-**	**25**	**25**	**-**	**-**	**8**	**-**	**8**
Doctorate	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	39	39	39	-	39	39	-	-	-	-	-	-	-	-
Bachelor's	352	344	344	-	319	319	-	25	25	-	-	8	-	8
Associate	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No degree	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Footnotes at end of Table

Table B-21. Number of Female Scientists and Engineers by Field, Highest Degree, and Employment Status: 1982—continued

Field and Highest Degree	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Other	8,691	7,993	7,610	383	7,730	7,374	356	263	236	27	278	420	70	351
Doctorate	298	281	281	-	261	261	-	20	20	-	-	17	17	-
Professional/medical	10	10	10	-	10	10	-	-	-	-	-	-	-	-
Master's	2,171	2,125	1,969	155	1,993	1,837	155	132	132	-	25	22	-	22
Bachelor's	4,603	4,086	3,893	193	3,995	3,828	167	91	65	27	212	305	20	285
Associate	236	227	227	-	227	227	-	-	-	-	-	8	8	-
Other	20	20	20	-	20	20	-	-	-	-	-	-	-	-
No degree	1,353	1,243	1,209	34	1,223	1,189	34	20	20	-	41	68	25	43
Life scientists	26,274	23,061	20,466	2,585	19,441	17,504	1,937	3,610	2,962	648	1,269	1,954	274	1,680
Doctorate	8,090	7,503	7,194	309	6,741	6,724	17	762	470	293	387	200	10	190
Professional/medical	672	672	399	273	642	399	244	29	-	29	-	-	-	-
Master's	9,170	7,586	6,488	1,099	5,532	4,720	812	2,055	1,768	287	643	940	255	685
Bachelor's	8,342	7,289	6,386	903	6,526	5,861	664	753	725	39	239	814	10	804
Biologists	17,641	15,350	13,750	1,600	12,930	11,524	1,406	2,420	2,226	194	1,037	1,254	39	1,214
Doctorate	4,564	4,099	3,943	156	3,626	3,626	-	473	317	156	358	107	10	97
Professional/medical	146	146	29	117	146	29	117	-	-	-	-	-	-	-
Master's	6,964	5,839	5,144	695	4,269	3,592	677	1,570	1,552	18	593	532	20	512
Bachelor's	5,967	5,266	4,634	631	4,889	4,277	612	376	357	20	87	615	10	605
Biochemists	2,306	2,059	1,896	163	1,894	1,750	143	166	146	20	49	196	113	84
Doctorate	1,502	1,419	1,392	26	1,350	1,333	17	69	59	10	9	74	-	74
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	606	452	326	127	356	239	117	97	87	10	31	122	113	10
Bachelor's	197	188	178	10	188	178	10	-	-	-	9	-	-	-
Agricultural scientists	2,181	1,970	1,833	136	1,630	1,503	127	339	330	9	153	39	-	39
Doctorate	590	590	590	-	580	580	-	10	10	-	-	-	-	-
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	337	299	281	18	260	241	18	39	39	-	19	19	-	19
Bachelor's	1,234	1,081	962	118	791	682	109	290	281	9	134	20	-	20
Medical scientists	4,167	3,672	2,987	685	2,987	2,726	260	686	261	425	29	465	122	343
Doctorate	1,434	1,395	1,268	127	1,185	1,185	-	210	83	127	20	19	-	19
Professional/medical	525	525	369	156	496	369	127	29	-	29	-	-	-	-
Master's	1,264	997	738	259	648	648	-	349	90	259	-	266	122	144
Bachelor's	944	755	612	143	658	524	134	97	87	10	10	180	-	180
Psychologists	33,287	30,205	26,401	3,804	23,850	20,449	3,401	6,355	5,953	403	728	2,354	284	2,070
Doctorate	14,203	13,548	12,716	832	11,280	10,703	577	2,268	2,013	255	259	396	117	279
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	16,383	14,324	12,447	1,877	10,712	8,974	1,738	3,612	3,473	139	382	1,667	167	1,501
Bachelor's	2,701	2,333	1,239	1,094	1,858	772	1,086	475	467	8	77	290	-	290
Social scientists	30,339	25,581	21,893	3,688	20,542	17,394	3,149	5,038	4,490	549	1,643	3,116	1,066	2,050
Doctorate	8,502	7,562	7,186	376	6,333	6,085	248	1,229	1,101	128	174	766	342	424
Professional/medical	15	15	15	-	15	15	-	-	-	-	-	-	-	-
Master's	14,267	11,700	10,338	1,363	8,765	7,571	1,194	2,935	2,767	168	1,009	1,556	582	976
Bachelor's	7,555	6,304	4,344	1,959	5,429	3,723	1,706	874	621	253	460	791	141	650
Economists	5,705	4,626	4,156	470	3,775	3,550	225	851	607	245	281	798	390	408
Doctorate	1,698	1,451	1,406	45	1,147	1,102	45	305	305	-	15	232	117	115
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	2,281	1,770	1,674	97	1,513	1,417	97	257	257	-	90	420	245	176
Bachelor's	1,726	1,404	1,076	328	1,115	1,031	83	290	45	245	176	146	29	117
Sociologists / anthropologists	9,353	8,347	6,540	1,807	6,750	5,131	1,619	1,597	1,409	188	583	423	-	423
Doctorate	3,954	3,617	3,313	305	2,879	2,702	177	738	611	128	159	177	-	177
Professional/medical	15	15	15	-	15	15	-	-	-	-	-	-	-	-
Master's	2,851	2,230	1,906	324	1,533	1,270	264	697	637	60	424	196	-	196
Bachelor's	2,533	2,485	1,306	1,178	2,323	1,144	1,178	162	162	-	-	48	-	48
Other social scientists	15,282	12,606	11,187	1,421	10,018	8,713	1,304	2,590	2,474	117	779	1,896	678	1,219
Doctorate	2,850	2,493	2,467	26	2,307	2,281	26	186	186	-	-	357	225	132
Professional/medical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master's	9,135	7,700	6,758	942	5,718	4,884	834	1,981	1,873	106	495	940	338	602
Bachelor's	3,298	2,415	1,962	453	1,992	1,546	445	423	414	8	284	597	113	485

NOTE: Detail may not add to total due to rounding.

Source: National Science Foundation.

Table B-22. **Number of Female Scientists and Engineers by Field, Age, and Employment Status: 1982**

Field and Age	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Total, all fields	182,885	161,277	139,086	22,191	139,532	119,514	20,017	21,746	19,572	2,174	6,397	15,211	2,799	12,412
Under 30	47,034	41,245	35,856	5,388	36,476	31,488	4,988	4,768	4,370	399	1,573	4,216	-	4,216
30-34	42,463	37,107	31,470	5,637	31,979	26,844	5,135	5,128	4,626	502	1,399	3,957	-	3,957
35-39	33,806	29,903	25,376	4,527	25,183	21,127	4,056	4,720	4,249	471	1,402	2,501	-	2,501
40-44	20,027	18,466	16,309	2,156	16,065	14,063	2,002	2,401	2,246	155	839	723	-	723
45-49	11,246	10,756	9,503	1,253	9,631	8,668	963	1,125	835	290	291	199	117	82
50-54	10,249	9,554	7,823	1,730	8,283	6,626	1,657	1,270	1,197	74	396	299	10	289
55-59	8,553	7,646	6,901	745	7,057	6,312	745	589	589	-	299	608	431	176
60-64	4,856	3,773	3,487	285	3,378	3,111	266	395	376	19	180	903	682	221
65-69	2,004	1,132	1,043	89	669	600	69	463	444	20	-	872	743	129
70 and over	1,974	1,023	852	171	210	210	-	813	642	171	17	934	816	118
Not reported	674	674	463	211	600	463	137	74	-	74	-	-	-	-
Physical scientists	13,499	11,148	10,709	439	9,742	9,319	423	1,406	1,389	17	690	1,661	489	1,172
Under 30	2,915	2,428	2,375	53	2,208	2,156	53	219	219	-	109	378	-	378
30-34	2,858	2,113	2,020	93	1,937	1,845	93	175	175	-	148	597	-	597
35-39	1,903	1,673	1,623	50	1,429	1,379	50	244	244	-	178	52	-	52
40-44	1,319	1,286	1,118	168	1,179	1,011	168	107	107	-	17	17	-	17
45-49	1,098	1,076	1,033	42	1,009	983	26	67	50	17	22	-	-	-
50-54	1,047	1,008	1,008	-	874	874	-	134	134	-	39	-	-	-
55-59	640	485	451	33	425	392	33	60	60	-	26	129	129	-
60-64	1,125	750	750	-	616	616	-	134	134	-	134	242	129	113
65-69	328	194	194	-	61	61	-	134	134	-	-	134	117	17
70 and over	266	136	136	-	3	3	-	134	134	-	17	113	113	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemists	11,000	9,155	8,740	415	8,148	7,750	398	1,007	991	17	550	1,295	488	807
Under 30	2,217	1,853	1,800	53	1,803	1,750	53	50	50	-	109	255	-	255
30-34	2,197	1,695	1,617	77	1,544	1,467	77	150	150	-	148	354	-	354
35-39	1,721	1,503	1,453	50	1,319	1,268	50	184	184	-	167	52	-	52
40-44	1,170	1,137	978	159	1,042	883	159	95	95	-	17	17	-	17
45-49	981	938	896	42	872	846	26	67	50	17	22	-	-	-
50-54	958	922	922	-	788	788	-	134	134	-	37	-	-	-
55-59	560	414	381	33	354	321	33	60	60	-	17	129	129	-
60-64	658	399	399	-	382	382	-	17	17	-	17	242	129	113
65-69	311	178	178	-	44	44	-	134	134	-	-	134	117	17
70 and over	246	117	117	-	-	-	-	117	117	-	17	113	113	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Physicists / astronomers	1,847	1,392	1,377	15	1,070	1,055	15	322	322	-	117	338	-	338
Under 30	448	336	336	-	219	219	-	117	117	-	-	113	-	113
30-34	494	268	253	15	268	253	15	-	-	-	-	226	-	226
35-39	134	134	134	-	75	75	-	59	59	-	-	-	-	-
40-44	64	64	64	-	52	52	-	12	12	-	-	-	-	-
45-49	104	104	104	-	104	104	-	-	-	-	-	-	-	-
50-54	42	42	42	-	42	42	-	-	-	-	-	-	-	-
55-59	60	60	60	-	60	60	-	-	-	-	-	-	-	-
60-64	468	351	351	-	234	234	-	117	117	-	117	-	-	-
65-69	17	17	17	-	17	17	-	-	-	-	-	-	-	-
70 and over	17	17	17	-	-	-	-	17	17	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other physical scientists	652	601	592	9	524	514	9	77	77	-	23	27	-	27
Under 30	249	239	239	-	186	186	-	52	52	-	-	11	-	11
30-34	167	150	150	-	125	125	-	25	25	-	-	17	-	17
35-39	47	36	36	-	36	36	-	-	-	-	12	-	-	-
40-44	86	86	76	9	86	76	9	-	-	-	-	-	-	-
45-49	33	33	33	-	33	33	-	-	-	-	-	-	-	-
50-54	47	45	45	-	45	45	-	-	-	-	3	-	-	-
55-59	19	11	11	-	11	11	-	-	-	-	9	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	3	3	3	-	3	3	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mathematical scientists	9,625	8,051	7,018	1,033	6,983	6,080	903	1,068	938	131	351	1,223	438	785
Under 30	1,707	1,456	1,241	215	1,285	1,070	215	171	171	-	117	135	-	135
30-34	1,895	1,478	1,169	308	1,250	1,054	196	228	116	113	38	380	-	380
35-39	2,539	2,147	1,856	290	1,869	1,578	290	278	278	-	140	252	-	252
40-44	1,259	1,185	1,031	153	860	725	135	325	307	18	56	18	-	18
45-49	578	578	578	-	541	541	-	36	36	-	-	-	-	-
50-54	421	421	409	12	409	397	12	12	12	-	-	-	-	-
55-59	607	476	458	18	476	458	18	-	-	-	-	131	131	-
60-64	256	226	191	36	226	191	36	-	-	-	-	30	30	-
65-69	351	73	73	-	55	55	-	18	18	-	-	278	278	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	12	12	12	-	12	12	-	-	-	-	-	-	-	-
Mathematicians	7,414	6,044	5,361	683	5,324	4,772	552	720	589	131	342	1,028	408	620
Under 30	989	872	809	63	768	705	63	104	104	-	117	-	-	-
30-34	1,398	1,021	775	245	821	688	132	200	87	113	29	349	-	349
35-39	2,120	1,728	1,554	174	1,550	1,377	174	178	178	-	140	252	-	252
40-44	935	861	708	153	671	536	135	190	172	18	56	18	-	18
45-49	500	500	500	-	463	463	-	36	36	-	-	-	-	-
50-54	384	384	373	12	373	361	12	12	12	-	-	-	-	-
55-59	552	421	403	18	421	403	18	-	-	-	-	131	131	-
60-64	228	210	191	18	210	191	18	-	-	-	-	18	18	-
65-69	295	36	36	-	36	36	-	-	-	-	-	259	259	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	12	12	12	-	12	12	-	-	-	-	-	-	-	-

See Footnotes at end of Table

Table B-22. Number of Female Scientists and Engineers by Field, Age, and Employment Status: 1982—continued

Field and Age	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Statisticians	2,211	2,007	1,867	350	1,658	1,308	350	349	349	–	9	195	30	165
Under 30	[illegible]	583	431	152	517	365	152	66	66	–	–	135	–	135
30-34	497	457	394	63	429	366	63	28	28	–	9	30	–	30
35-39	419	419	302	117	318	201	117	101	101	–	–	–	–	–
40-44	324	324	324	–	189	189	–	135	135	–	–	–	–	–
45-49	78	78	78	–	78	78	–	–	–	–	–	–	–	–
50-54	36	36	36	–	36	36	–	–	–	–	–	–	–	–
55-59	55	55	55	–	55	55	–	–	–	–	–	–	–	–
60-64	30	18	–	18	18	–	18	–	–	–	–	12	12	–
65-69	55	36	36	–	18	18	–	18	18	–	–	18	18	–
70 and over	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not reported	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Computer specialists	39,363	36,438	26,835	9,603	33,808	24,452	9,356	2,630	2,383	247	361	2,563	–	2,563
Under 30	13,068	12,214	8,790	3,424	11,654	8,280	3,374	560	510	50	40	815	–	815
30-34	11,426	10,430	7,816	2,614	9,619	7,065	2,554	811	752	60	60	940	–	940
35-39	8,218	7,629	5,584	2,045	6,665	4,738	1,928	964	847	117	115	474	–	474
40-44	3,449	3,007	2,363	644	2,831	2,186	644	176	176	–	127	315	–	315
45-49	1,260	1,240	985	254	1,200	946	254	40	40	–	–	20	–	20
50-54	890	870	479	391	831	440	391	40	40	–	20	–	–	–
55-59	642	642	491	152	623	471	152	20	20	–	–	–	–	–
60-64	230	230	190	40	230	190	40	–	–	–	–	–	–	–
65-69	–	–	–	–	–	–	–	–	–	–	–	–	–	–
70 and over	20	20	20	–	20	20	–	–	–	–	–	–	–	–
Not reported	157	157	117	40	137	117	20	20	–	20	–	–	–	–
Environmental scientists	3,344	3,066	3,040	26	2,711	2,696	15	355	344	11	92	186	–	186
Under 30	1,460	1,273	1,247	26	1,079	1,064	15	194	183	11	46	141	–	141
30-34	825	779	779	–	706	706	–	73	73	–	25	21	–	21
35-39	514	490	490	–	469	469	–	21	21	–	–	24	–	24
40-44	187	166	166	–	141	141	–	25	25	–	21	–	–	–
45-49	89	89	89	–	79	79	–	11	11	–	–	–	–	–
50-54	75	75	75	–	75	75	–	–	–	–	–	–	–	–
55-59	97	97	97	–	86	86	–	11	11	–	–	–	–	–
60-64	59	59	59	–	48	48	–	11	11	–	–	–	–	–
65-69	25	25	25	–	14	14	–	11	11	–	–	–	–	–
70 and over	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not reported	14	14	14	–	14	14	–	–	–	–	–	–	–	–
Earth scientists	2,830	2,571	2,545	26	2,249	2,234	15	321	311	11	92	168	–	168
Under 30	1,388	1,220	1,195	26	1,029	1,014	15	191	180	11	46	123	–	123
30-34	609	564	564	–	507	507	–	56	56	–	25	21	–	21
35-39	345	321	321	–	310	310	–	11	11	–	–	24	–	24
40-44	183	162	162	–	141	141	–	21	21	–	21	–	–	–
45-49	73	73	73	–	62	62	–	11	11	–	–	–	–	–
50-54	65	65	65	–	65	35	–	–	–	–	–	–	–	–
55-59	86	86	86	–	75	75	–	11	11	–	–	–	–	–
60-64	42	42	42	–	32	32	–	11	11	–	–	–	–	–
65-69	25	25	25	–	14	14	–	11	11	–	–	–	–	–
70 and over	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not reported	14	14	14	–	14	14	–	–	–	–	–	–	–	–
Oceanographers	183	183	183	–	169	169	–	14	14	–	–	–	–	–
Under 30	–	–	–	–	–	–	–	–	–	–	–	–	–	–
30-34	41	41	41	–	41	41	–	–	–	–	–	–	–	–
35-39	138	138	138	–	127	127	–	11	11	–	–	–	–	–
40-44	4	4	4	–	–	–	–	4	4	–	–	–	–	–
45-49	–	–	–	–	–	–	–	–	–	–	–	–	–	–
50-54	–	–	–	–	–	–	–	–	–	–	–	–	–	–
55-59	–	–	–	–	–	–	–	–	–	–	–	–	–	–
60-64	–	–	–	–	–	–	–	–	–	–	–	–	–	–
65-69	–	–	–	–	–	–	–	–	–	–	–	–	–	–
70 and over	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not reported	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Atmospheric scientists	331	312	312	–	293	293	–	19	19	–	–	19	–	19
Under 30	72	53	53	–	50	50	–	3	3	–	–	19	–	19
30-34	174	174	174	–	157	157	–	17	17	–	–	–	–	–
35-39	31	31	31	–	31	31	–	–	–	–	–	–	–	–
40-44	–	–	–	–	–	–	–	–	–	–	–	–	–	–
45-49	17	17	17	–	17	17	–	–	–	–	–	–	–	–
50-54	11	11	11	–	11	11	–	–	–	–	–	–	–	–
55-59	11	11	11	–	11	11	–	–	–	–	–	–	–	–
60-64	17	17	17	–	17	17	–	–	–	–	–	–	–	–
65-69	–	–	–	–	–	–	–	–	–	–	–	–	–	–
70 and over	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not reported	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Engineers	27,154	23,737	22,733	1,004	22,464	21,620	834	1,292	1,112	170	1,264	2,154	249	1,905
Under 30	12,949	11,224	10,784	440	10,539	10,234	305	685	550	135	534	1,191	–	1,191
30-34	5,591	4,727	4,407	320	4,506	4,213	293	220	194	27	399	466	–	466
35-39	3,234	3,015	2,837	178	2,770	2,600	169	245	237	8	62	157	–	157
40-44	1,512	1,445	1,417	28	1,436	1,409	28	8	8	–	40	28	–	28
45-49	1,256	1,076	1,068	8	1,050	1,042	8	26	26	–	171	8	–	8
50-54	875	828	816	12	783	771	12	45	45	–	17	30	–	30
55-59	1,065	971	961	9	937	928	9	33	33	–	25	70	45	25
60-64	348	298	289	9	287	278	9	11	11	–	17	33	33	–
65-69	111	62	62	–	53	53	–	8	8	–	–	50	50	–
70 and over	162	41	41	–	41	41	–	–	–	–	–	121	121	–
Not reported	51	51	51	–	51	51	–	–	–	–	–	–	–	–

See Footnotes at end of Table

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Table B-22. Number of Female Scientists and Engineers by Field, Age, and Employment Status: 1982—continued

Field and Age	Total	Employed									Unem-ployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Aeronautical / Astronautical	907	849	839	10	712	702	10	138	138	-	33	25	8	17
Under 30	369	360	350	10	239	229	10	121	121	-	8	-	-	-
30-34	157	157	157	-	157	157	-	-	-	-	-	-	-	-
35-39	91	91	91	-	91	91	-	-	-	-	-	-	-	-
40-44	51	26	26	-	26	26	-	-	-	-	17	8	-	8
45-49	52	52	52	-	44	44	-	8	8	-	-	-	-	-
50-54	76	76	76	-	76	76	-	-	-	-	-	-	-	-
55-59	86	69	69	-	61	61	-	8	8	-	-	17	8	8
60-64	25	17	17	-	17	17	-	-	-	-	8	-	-	-
65-69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical	3,204	2,428	2,321	107	2,231	2,133	99	197	188	8	223	553	8	545
Under 30	1,661	1,228	1,189	39	1,202	1,164	39	26	26	-	64	370	-	370
30-34	925	608	583	25	479	462	17	129	121	8	150	167	-	167
35-39	346	329	297	32	312	280	32	17	17	-	9	8	-	8
40-44	67	67	67	-	67	67	-	-	-	-	-	-	-	-
45-49	68	68	68	-	68	68	-	-	-	-	-	-	-	-
50-54	95	95	83	12	70	58	12	25	25	-	-	-	-	-
55-59	25	25	25	-	25	25	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	17	8	8	-	8	8	-	-	-	-	-	8	8	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Civil	2,673	2,301	2,267	34	2,236	2,202	34	65	65	-	118	256	25	231
Under 30	1,387	1,247	1,230	17	1,196	1,179	17	51	51	-	50	90	-	90
30-34	480	324	315	8	318	310	8	6	6	-	25	131	-	131
35-39	214	214	214	-	214	214	-	-	-	-	-	-	-	-
40-44	151	143	143	-	143	143	-	-	-	-	8	-	-	-
45-49	119	102	102	-	102	102	-	-	-	-	17	-	-	-
50-54	176	158	158	-	158	158	-	-	-	-	8	9	-	9
55-59	67	51	51	-	42	42	-	8	8	-	8	8	8	-
60-64	60	51	42	9	51	42	9	-	-	-	-	8	8	-
65-69	8	-	-	-	-	-	-	-	-	-	-	8	8	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	10	10	10	-	10	10	-	-	-	-	-	-	-	-
Electrical / Electronic	3,963	3,432	3,289	143	3,339	3,197	143	92	92	-	264	266	-	266
Under 30	1,844	1,529	1,511	18	1,470	1,452	18	59	59	-	63	251	-	251
30-34	624	598	598	-	590	590	-	8	8	-	18	8	-	8
35-39	597	570	453	117	561	444	117	8	8	-	28	-	-	-
40-44	291	291	283	8	291	283	8	-	-	-	-	-	-	-
45-49	321	174	174	-	166	166	-	8	8	-	147	-	-	-
50-54	120	120	120	-	120	120	-	-	-	-	-	-	-	-
55-59	110	102	102	-	94	94	-	8	8	-	-	8	-	6
60-64	32	23	23	-	23	23	-	-	-	-	8	-	-	-
65-69	8	8	8	-	8	8	-	-	-	-	-	-	-	-
70 and over	8	8	8	-	8	8	-	-	-	-	-	-	-	-
Not reported	8	8	8	-	8	8	-	-	-	-	-	-	-	-
Industrial	2,316	2,011	1,963	48	1,960	1,915	45	51	48	3	99	206	8	198
Under 30	1,308	1,080	1,049	31	1,077	1,049	29	3	-	3	81	148	-	148
30-34	486	443	427	17	417	401	17	26	26	-	18	25	-	25
35-39	246	237	237	-	218	218	-	20	20	-	-	8	-	8
40-44	137	137	137	-	137	137	-	-	-	-	-	-	-	-
45-49	50	41	41	-	41	41	-	-	-	-	-	8	-	8
50-54	8	8	8	-	8	8	-	-	-	-	-	-	-	-
55-59	45	37	37	-	37	37	-	-	-	-	-	8	-	8
60-64	26	19	19	-	17	17	-	3	3	-	-	8	8	-
65-69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	8	8	8	-	8	8	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Materials	770	565	556	9	565	556	9	-	-	-	155	50	-	50
Under 30	462	307	307	-	307	307	-	-	-	-	138	17	-	17
30-34	76	42	33	9	42	33	9	-	-	-	17	17	-	17
35-39	67	59	59	-	59	59	-	-	-	-	-	8	-	8
40-44	56	48	48	-	48	48	-	-	-	-	-	8	-	8
45-49	50	50	50	-	50	50	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	17	17	17	-	17	17	-	-	-	-	-	-	-	-
60-64	33	33	33	-	33	33	-	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	8	8	8	-	8	8	-	-	-	-	-	-	-	-
Mechanical	3,847	3,532	3,262	270	3,088	2,950	138	444	312	132	88	228	17	211
Under 30	1,940	1,696	1,443	253	1,422	1,301	121	274	142	132	70	173	-	173
30-34	503	477	460	17	477	460	17	-	-	-	18	8	-	8
35-39	471	463	463	-	319	319	-	144	144	-	-	8	-	8
40-44	170	170	170	-	162	162	-	8	8	-	-	-	-	-
45-49	194	194	194	-	184	184	-	9	9	-	-	-	-	-
50-54	113	92	92	-	92	92	-	-	-	-	-	21	-	21
55-59	362	362	362	-	354	354	-	8	8	-	-	-	-	-
60-64	50	42	42	-	42	42	-	-	-	-	-	8	8	-
65-69	45	37	37	-	37	37	-	-	-	-	-	8	8	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Footnotes at end of Table

Table B-22. Number of Female Scientists and Engineers by Field, Age, and Employment Status: 1982—continued

Field and Age	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Mining	219	107	107	-	99	99	-	8	8	-	-	113	113	-
Under 30	72	72	72	-	72	72	-	-	-	-	-	-	-	-
30-34	8	8	8	-	-	-	-	8	8	-	-	-	-	-
35-39	13	13	13	-	13	13	-	-	-	-	-	-	-	-
40-44	13	13	13	-	13	13	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	113	-	-	-	-	-	-	-	-	-	-	113	113	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	173	137	137	-	137	137	-	-	-	-	8	28	-	28
Under 30	83	83	83	-	83	83	-	-	-	-	-	-	-	-
30-34	53	28	28	-	28	28	-	-	-	-	-	25	-	25
35-39	18	18	18	-	18	18	-	-	-	-	-	-	-	-
40-44	3	-	-	-	-	-	-	-	-	-	-	3	-	3
45-49	8	8	8	-	8	8	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	8	-	-	-	-	-	-	-	-	-	8	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	391	383	383	-	358	358	-	25	25	-	-	8	-	8
Under 30	247	239	239	-	222	222	-	17	17	-	-	8	-	8
30-34	49	49	49	-	49	49	-	-	-	-	-	-	-	-
35-39	53	53	53	-	44	44	-	8	8	-	-	-	-	-
40-44	8	8	8	-	8	8	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	34	34	34	-	34	34	-	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	8,691	7,993	7,610	383	7,730	7,374	356	263	236	27	278	420	70	351
Under 30	3,577	3,384	3,311	73	3,249	3,176	73	135	135	-	59	134	-	134
30-34	2,231	1,992	1,748	244	1,948	1,723	226	43	25	18	154	85	-	85
35-39	1,117	968	939	29	920	900	21	48	40	8	25	124	-	124
40-44	564	541	522	19	541	522	19	-	-	-	15	8	-	8
45-49	393	385	377	8	385	377	8	-	-	-	8	-	-	-
50-54	287	278	278	-	258	258	-	20	20	-	8	-	-	-
55-59	345	308	299	9	308	299	9	-	-	-	8	28	28	-
60-64	86	78	78	-	70	70	-	8	8	-	-	8	8	-
65-69	50	17	17	-	8	8	-	8	8	-	-	33	33	-
70 and over	17	17	17	-	17	17	-	-	-	-	-	-	-	-
Not reported	25	25	25	-	25	25	-	-	-	-	-	-	-	-
Life scientists	26,274	23,051	20,466	2,586	19,441	17,504	1,937	3,610	2,962	648	1,268	1,954	274	1,680
Under 30	5,998	5,070	4,762	308	3,821	3,704	117	1,249	1,058	191	377	551	-	551
30-34	5,926	5,391	4,656	736	4,683	4,072	610	709	583	125	251	284	-	284
35-39	4,732	3,939	3,453	487	3,246	2,788	456	694	665	29	210	583	-	583
40-44	3,436	2,969	2,589	380	2,665	2,421	244	304	168	136	390	77	-	77
45-49	1,811	1,782	1,771	11	1,704	1,693	11	78	78	-	19	10	-	10
50-54	1,530	1,353	972	380	1,265	904	361	87	67	20	21	156	10	146
55-59	1,662	1,530	1,403	127	1,329	1,202	127	201	201	-	-	132	113	20
60-64	631	592	572	20	563	553	10	29	19	10	-	39	39	-
65-69	137	137	117	20	98	98	-	39	20	20	-	-	-	-
70 and over	372	249	132	117	29	29	-	220	103	117	-	122	113	10
Not reported	39	39	39	-	39	39	-	-	-	-	-	-	-	-
Biologists	17,641	15,350	13,750	1,600	12,930	11,524	1,406	2,420	2,226	194	1,037	1,254	39	1,214
Under 30	4,650	3,818	3,698	120	2,830	2,739	90	988	958	20	348	483	-	483
30-34	3,860	3,533	2,914	619	3,161	2,550	610	372	364	8	232	95	-	95
35-39	3,329	2,859	2,515	344	2,381	2,057	324	478	458	20	57	413	-	413
40-44	2,144	1,706	1,462	244	1,464	1,347	117	242	115	127	380	57	-	57
45-49	1,176	1,166	1,155	11	1,117	1,106	11	49	49	-	10	-	-	-
50-54	773	607	490	117	556	439	117	51	51	-	10	156	10	146
55-59	970	970	843	127	798	671	127	172	172	-	-	-	-	-
60-64	546	517	507	10	517	507	10	-	-	-	-	29	29	-
65-69	78	78	69	10	59	59	-	20	10	10	-	-	-	-
70 and over	78	69	69	-	20	20	-	49	49	-	-	10	-	10
Not reported	29	29	29	-	29	29	-	-	-	-	-	-	-	-
Biochemists	2,306	2,060	1,896	163	1,894	1,750	143	166	146	20	49	196	113	84
Under 30	115	106	86	20	86	76	10	20	10	10	9	-	-	-
30-34	649	604	604	-	558	558	-	46	46	-	9	36	-	36
35-39	417	389	255	134	349	215	134	40	40	-	-	28	-	28
40-44	247	217	217	-	186	186	-	31	31	-	10	20	-	20
45-49	329	320	320	-	310	310	-	10	10	-	9	-	-	-
50-54	233	222	212	10	212	212	-	10	-	10	12	-	-	-
55-59	173	173	173	-	173	173	-	-	-	-	-	-	-	-
60-64	9	9	9	-	-	-	-	9	9	-	-	-	-	-
65-69	20	20	20	-	20	20	-	-	-	-	-	-	-	-
70 and over	113	-	-	-	-	-	-	-	-	-	-	113	113	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Footnotes at end of Table

Table B-22. Number of Female Scientists and Engineers by Field, Age, and Employment Status: 1982—continued

Field and Age	Total	Employed									Unem-ployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
	Total	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Agricultural scientists	2,161	1,970	1,833	136	1,630	1,503	127	339	330	9	153	39	-	39
Under 30	840	811	801	9	742	742	-	68	59	9	10	20	-	20
30-34	618	609	609	-	474	474	-	135	135	-	-	9	-	9
35-39	348	196	196	-	69	69	-	127	127	-	143	10	-	10
40-44	185	185	185	-	185	185	-	-	-	-	-	-	-	-
45-49	21	21	21	-	21	21	-	-	-	-	-	-	-	-
50-54	139	139	12	127	139	12	127	-	-	-	-	-	-	-
55-59	10	10	10	-	-	-	-	10	10	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medical scientists	4,167	3,672	2,987	685	2,987	2,726	260	686	261	425	29	465	122	343
Under 30	384	336	177	159	163	146	17	174	31	142	10	38	-	38
30-34	800	646	529	117	490	490	-	156	39	117	10	144	-	144
35-39	638	496	486	10	447	447	-	49	39	10	10	132	-	132
40-44	861	861	724	136	829	703	127	31	21	10	-	-	-	-
45-49	284	275	275	-	255	255	-	20	20	-	-	10	-	10
50-54	386	385	259	127	359	242	117	26	17	10	-	-	-	-
55-59	510	378	378	-	358	358	-	20	20	-	-	132	113	20
60-64	75	66	56	10	46	46	-	20	10	10	-	10	10	-
65-69	39	39	29	10	20	20	-	20	10	10	-	-	-	-
70 and over	181	181	64	117	10	10	-	171	54	117	-	-	-	-
Not reported	10	10	10	-	10	10	-	-	-	-	-	-	-	-
Psychologists	33,287	30,205	26,401	3,804	23,850	20,449	3,401	6,355	5,953	403	728	2,354	284	2,070
Under 30	4,229	3,775	3,336	439	2,610	2,184	427	1,164	1,152	12	117	338	-	338
30-34	7,288	6,665	6,105	561	4,999	4,465	533	1,666	1,639	27	82	540	-	540
35-39	6,718	5,747	5,236	511	4,512	4,066	446	1,235	1,170	65	312	660	-	660
40-44	4,452	4,186	3,543	643	3,495	2,853	643	691	691	-	140	126	-	126
45-49	3,127	3,050	2,400	650	2,510	1,986	523	540	414	127	63	14	-	14
50-54	3,043	3,029	2,516	513	2,533	2,074	459	496	442	54	14	-	-	-
55-59	1,976	1,859	1,715	145	1,795	1,651	145	64	64	-	-	117	-	117
60-64	1,326	1,159	979	180	963	792	171	196	186	9	-	167	113	54
65-69	534	250	196	54	226	172	54	24	24	-	-	284	171	113
70 and over	333	225	171	54	-	-	-	225	171	54	-	108	-	108
Not reported	260	260	206	54	206	206	-	54	-	54	-	-	-	-
Social scientists	30,339	25,581	21,883	3,698	20,542	17,394	3,149	5,038	4,490	549	1,643	3,116	1,056	2,060
Under 30	4,707	3,806	3,324	482	3,280	2,798	482	526	526	-	234	667	-	667
30-34	6,650	5,525	4,518	1,007	4,280	3,424	856	1,245	1,094	151	396	729	-	729
35-39	5,948	5,263	4,298	965	4,225	3,510	714	1,038	788	251	385	299	-	299
40-44	4,414	4,223	4,082	140	3,458	3,318	140	764	764	-	48	143	-	143
45-49	2,028	1,866	1,579	287	1,538	1,398	140	327	180	147	15	147	117	30
50-54	2,368	1,970	1,548	423	1,513	1,090	423	458	458	-	285	113	-	113
55-59	1,864	1,587	1,326	261	1,385	1,125	261	201	201	-	249	29	14	15
60-64	880	458	458	-	443	443	-	15	15	-	30	392	338	54
65-69	519	392	378	15	162	147	15	230	230	-	-	128	128	-
70 and over	821	351	351	-	117	117	-	234	234	-	-	470	470	-
Not reported	141	141	24	117	141	24	117	-	-	-	-	-	-	-
Economists	5,706	4,626	4,156	470	3,775	3,550	225	851	607	245	281	798	390	408
Under 30	1,644	1,322	1,256	67	1,257	1,191	67	65	65	-	59	263	-	263
30-34	1,306	1,163	976	188	848	788	60	316	188	128	15	130	-	130
35-39	650	594	549	45	503	458	45	90	90	-	57	-	-	-
40-44	337	319	304	15	304	289	15	15	15	-	18	-	-	-
45-49	479	347	207	140	230	207	23	117	-	117	-	132	117	15
50-54	176	176	161	15	176	161	15	-	-	-	-	-	-	-
55-59	379	249	249	-	249	249	-	-	-	-	117	14	14	-
60-64	320	192	192	-	177	177	-	15	15	-	15	113	113	-
65-69	162	147	147	-	30	30	-	117	117	-	-	15	15	-
70 and over	249	117	117	-	-	-	-	117	117	-	-	132	132	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sociologists / anthropologists	9,353	8,347	6,540	1,807	6,750	5,131	1,619	1,597	1,409	188	583	423	-	423
Under 30	762	599	467	132	584	452	132	15	15	-	130	33	-	33
30-34	2,245	2,068	1,585	483	1,612	1,144	468	456	441	15	117	60	-	60
35-39	2,879	2,507	1,938	568	1,896	1,471	425	611	468	143	201	172	-	172
40-44	1,437	1,264	1,147	117	1,083	966	117	181	181	-	30	143	-	143
45-49	564	549	402	147	519	402	117	30	-	30	15	-	-	-
50-54	519	459	456	3	297	294	3	162	162	-	60	-	-	-
55-59	648	618	392	226	588	362	226	30	30	-	15	15	-	15
60-64	40	25	25	-	25	25	-	-	-	-	15	-	-	-
65-69	128	128	113	15	15	-	15	113	113	-	-	-	-	-
70 and over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	132	132	15	117	132	15	117	-	-	-	-	-	-	-
Other social scientists	15,282	12,608	11,187	1,421	10,018	8,713	1,304	2,590	2,474	117	779	1,895	676	1,219
Under 30	2,301	1,885	1,601	284	1,439	1,155	284	446	446	-	45	371	-	371
30-34	3,097	2,294	1,957	337	1,820	1,492	329	474	465	8	264	539	-	539
35-39	2,418	2,163	1,811	352	1,825	1,581	244	338	229	108	128	128	-	128
40-44	2,639	2,639	2,631	8	2,071	2,063	8	568	568	-	-	-	-	-
45-49	985	970	970	-	790	790	-	180	180	-	-	15	-	15
50-54	1,673	1,335	930	405	1,040	635	405	296	296	-	225	113	-	113
55-59	837	720	685	35	549	514	35	171	171	-	117	-	-	-
60-64	520	241	241	-	241	241	-	-	-	-	-	279	225	54
65-69	230	117	117	-	117	117	-	-	-	-	-	113	113	-
70 and over	572	234	234	-	117	117	-	117	117	-	-	338	338	-
Not reported	9	9	9	-	9	9	-	-	-	-	-	-	-	-

NOTE: Detail may not add to total due to rounding.

Source: National Science Foundation.

Table B-23. Number of Female Scientists and Engineers by Field, Race, and Employment Status: 1982

Field and Race	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Total, all fields	182,885	161,277	139,086	22,191	139,532	119,514	20,017	21,746	19,572	2,174	6,387	15,211	2,799	12,412
White	161,038	141,673	122,183	19,490	121,549	104,047	17,501	20,124	18,136	1,988	5,313	14,052	2,776	11,276
Black	9,136	8,700	7,064	1,645	8,074	6,586	1,488	635	476	157	309	116	12	106
Asian	9,579	8,195	7,632	564	7,408	6,864	544	787	768	19	653	730	12	718
Other[1]	3,132	2,700	2,207	493	2,501	2,017	483	199	190	9	122	311	-	311
Physical scientists	13,499	11,148	10,709	439	9,742	9,319	423	1,406	1,389	17	690	1,661	488	1,172
White	11,286	9,299	8,949	350	7,938	7,604	333	1,362	1,345	17	373	1,613	488	1,125
Black	473	446	425	22	446	425	22	-	-	-	18	9	-	9
Asian	1,666	1,346	1,278	68	1,301	1,233	68	44	44	-	299	21	-	21
Other[1]	75	57	57	-	57	57	-	-	-	-	-	18	-	18
Chemists	11,000	9,155	8,740	415	8,148	7,750	398	1,007	990	17	560	1,295	488	807
White	8,865	7,364	7,029	335	6,381	6,062	318	984	967	17	254	1,247	488	759
Black	455	437	416	22	437	416	22	-	-	-	9	9	-	9
Asian	1,605	1,297	1,238	58	1,273	1,215	58	23	23	-	287	21	-	21
Other[1]	75	57	57	-	57	57	-	-	-	-	-	18	-	18
Physicists / astronomers	1,847	1,392	1,377	15	1,070	1,055	15	322	322	-	117	338	-	338
White	1,798	1,343	1,328	15	1,043	1,028	15	301	301	-	117	338	-	338
Black	9	9	9	-	9	9	-	-	-	-	-	-	-	-
Asian	39	39	39	-	19	19	-	21	21	-	-	-	-	-
Other[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other physical scientists	652	601	592	9	524	514	9	77	77	-	23	27	-	27
White	622	592	592	-	514	514	-	77	77	-	3	27	-	27
Black	9	-	-	-	-	-	-	-	-	-	9	-	-	-
Asian	21	9	-	9	9	-	9	-	-	-	12	-	-	-
Other[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mathematical scientists	9,625	8,051	7,018	1,033	6,983	6,080	903	1,069	938	131	351	1,223	439	785
White	8,252	6,872	6,034	838	5,860	5,153	707	1,012	881	131	308	1,073	415	658
Black	570	537	537	-	514	514	-	23	23	-	22	12	12	-
Asian	459	311	287	23	277	254	23	33	33	-	9	139	12	127
Other[1]	344	332	160	172	332	160	172	-	-	-	12	-	-	-
Mathematicians	7,414	6,044	5,361	683	5,324	4,772	552	720	589	131	342	1,028	409	620
White	6,606	5,281	4,630	651	4,596	4,076	521	685	554	131	308	1,016	397	620
Black	443	409	409	-	386	386	-	23	23	-	22	12	12	-
Asian	173	173	162	12	162	150	12	12	12	-	-	-	-	-
Other[1]	192	180	160	20	180	160	20	-	-	-	12	-	-	-
Statisticians	2,211	2,007	1,657	350	1,658	1,308	350	349	349	-	9	195	30	166
White	1,647	1,590	1,404	187	1,263	1,077	187	327	327	-	-	56	18	38
Black	128	128	128	-	128	128	-	-	-	-	-	-	-	-
Asian	285	137	125	12	115	104	12	22	22	-	9	139	12	127
Other[1]	152	152	-	152	152	-	152	-	-	-	-	-	-	-
Computer specialists	39,363	36,438	26,835	9,603	33,808	24,452	9,356	2,630	2,383	247	361	2,563	-	2,563
White	34,544	31,958	23,513	8,445	29,389	21,181	8,208	2,569	2,332	237	216	2,370	-	2,370
Black	2,199	2,161	1,368	792	2,161	1,368	792	-	-	-	-	38	-	38
Asian	1,964	1,838	1,522	316	1,796	1,490	306	42	32	10	25	22	-	22
Other[1]	635	482	432	50	462	412	50	20	20	-	20	133	-	133
Environmental scientists	3,344	3,066	3,040	26	2,711	2,696	15	355	344	11	92	186	-	186
White	3,213	2,946	2,920	26	2,591	2,576	15	355	344	11	81	186	-	186
Black	43	43	43	-	43	43	-	-	-	-	-	-	-	-
Asian	56	45	45	-	45	45	-	-	-	-	11	-	-	-
Other[1]	32	32	32	-	32	32	-	-	-	-	-	-	-	-
Earth scientists	2,830	2,571	2,545	26	2,249	2,234	15	321	311	11	92	168	-	168
White	2,730	2,481	2,456	26	2,160	2,145	15	321	311	11	81	168	-	168
Black	22	22	22	-	22	22	-	-	-	-	-	-	-	-
Asian	46	35	35	-	35	35	-	-	-	-	11	-	-	-
Other[1]	32	32	32	-	32	32	-	-	-	-	-	-	-	-
Oceanographers	183	183	183	-	169	169	-	14	14	-	-	-	-	-
White	183	183	183	-	169	169	-	14	14	-	-	-	-	-
Black	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asian	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Footnotes at end of Table

Table B-23. Number of Female Scientists and Engineers by Field, Race, and Employment Status: 1982 – continued

Field and Race	Total	Employed									Unemployed, seeking work	Not employed not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Atmospheric scientists	331	312	312	-	293	293	-	19	19	-	-	19	-	19
White	300	281	281	-	262	262	-	19	19	-	-	19	-	19
Black	21	21	21	-	21	21	-	-	-	-	-	-	-	-
Asian	10	10	10	-	10	10	-	-	-	-	-	-	-	-
Other[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineers	27,154	23,737	22,733	1,004	22,454	21,620	834	1,282	1,112	170	1,264	2,154	249	1,906
White	22,807	20,026	19,274	751	19,066	18,352	714	960	922	38	932	1,849	249	1,600
Black	1,555	1,315	1,163	153	1,183	1,163	21	132	-	132	194	46	-	46
Asian	2,215	1,985	1,913	72	1,804	1,731	72	182	182	-	110	119	-	119
Other[1]	578	410	383	28	402	374	28	8	8	-	27	141	-	141
Aeronautical / Astronautical	907	849	839	10	712	702	10	138	138	-	33	25	8	17
White	811	753	753	-	615	615	-	138	138	-	33	25	8	17
Black	31	31	31	-	31	31	-	-	-	-	-	-	-	-
Asian	46	46	46	-	46	46	-	-	-	-	-	-	-	-
Other[1]	19	19	9	10	19	9	10	-	-	-	-	-	-	-
Chemical	3,204	2,428	2,321	107	2,231	2,133	99	197	188	8	223	553	8	545
White	2,466	2,031	1,969	62	1,834	1,781	53	197	188	8	53	382	8	374
Black	194	41	31	10	41	31	10	-	-	-	142	10	-	10
Asian	[illegible]	296	261	35	296	261	35	-	-	-	28	37	-	37
Other[1]	183	60	60	-	60	60	-	-	-	-	-	123	-	123
Civil	2,673	2,301	2,267	34	2,236	2,202	34	65	65	-	116	256	25	231
White	2,276	1,942	1,917	25	1,887	1,862	25	55	55	-	108	226	25	201
Black	83	62	62	-	62	62	-	-	-	-	-	21	-	21
Asian	259	242	233	9	233	223	9	9	9	-	8	9	-	9
Other[1]	55	55	55	-	55	55	-	-	-	-	-	-	-	-
Electrical / Electronic	3,963	3,432	3,289	143	3,339	3,197	143	92	92	-	264	268	-	268
White	3,118	2,678	2,553	125	2,595	2,470	125	83	83	-	215	224	-	224
Black	184	163	163	-	163	163	-	-	-	-	21	-	-	-
Asian	574	528	519	9	519	510	9	9	9	-	19	27	-	27
Other[1]	88	62	54	8	62	54	8	-	-	-	8	18	-	18
Industrial	2,316	2,011	1,963	48	1,960	1,915	45	51	48	3	98	206	8	198
White	2,057	1,800	1,761	39	1,758	1,722	36	42	39	3	61	196	8	187
Black	137	126	126	-	126	126	-	-	-	-	-	10	-	10
Asian	84	55	46	9	46	37	9	9	9	-	28	-	-	-
Other[1]	39	30	30	-	30	30	-	-	-	-	9	-	-	-
Materials	770	565	556	9	565	556	9	-	-	-	155	50	-	50
White	684	489	489	-	489	489	-	-	-	-	146	50	-	50
Black	21	21	21	-	21	21	-	-	-	-	-	-	-	-
Asian	56	56	46	9	56	46	9	-	-	-	-	-	-	-
Other[1]	9	-	-	-	-	-	-	-	-	-	9	-	-	-
Mechanical	3,847	3,532	3,262	270	3,088	2,950	138	444	312	132	88	228	17	211
White	3,326	3,059	2,922	138	2,898	2,760	138	161	161	-	58	209	17	193
Black	225	204	72	132	72	72	-	132	-	132	21	-	-	-
Asian	279	252	252	-	110	110	-	142	142	-	9	18	-	18
Other[1]	17	17	17	-	8	8	-	8	8	-	-	-	-	-
Mining	219	107	107	-	98	98	-	9	9	-	-	113	113	-
White	219	107	107	-	98	98	-	9	9	-	-	113	113	-
Black	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asian	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	173	137	137	-	137	137	-	-	-	-	8	28	-	28
White	164	128	128	-	128	128	-	-	-	-	8	28	-	28
Black	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asian	9	9	9	-	9	9	-	-	-	-	-	-	-	-
Other[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	391	383	383	-	358	358	-	25	25	-	-	8	-	8
White	362	354	354	-	329	329	-	25	25	-	-	8	-	8
Black	10	10	10	-	10	10	-	-	-	-	-	-	-	-
Asian	19	19	19	-	19	19	-	-	-	-	-	-	-	-
Other[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Footnotes at end of Table

Table B-23. Number of Female Scientists and Engineers by Field, Race, and Employment Status: 1982—continued

Field and Race	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Other	8,691	7,993	7,610	383	7,730	7,374	356	263	236	27	278	420	70	351
White	7,324	6,686	6,323	363	6,435	6,098	337	251	225	27	249	388	70	318
Black	671	657	647	10	657	647	10	–	–	–	10	4	–	4
Asian	528	482	482	–	470	470	–	12	12	–	18	28	–	28
Other[1]	168	168	158	9	168	158	9	–	–	–	–	–	–	–
Life scientists	26,274	23,061	20,466	2,595	19,441	17,504	1,937	3,610	2,962	648	1,269	1,954	274	1,680
White	23,070	20,146	17,895	2,251	16,928	15,315	1,613	3,218	2,579	638	1,170	1,754	274	1,480
Black	816	796	752	44	618	574	44	178	178	–	20	–	–	–
Asian	1,801	1,561	1,505	56	1,357	1,310	46	204	195	9	59	181	–	181
Other[1]	587	548	314	234	538	305	234	10	10	–	20	19	–	19
Biologists	17,841	15,350	13,750	1,600	12,930	11,524	1,406	2,420	2,226	194	1,037	1,254	39	1,214
White	15,469	13,275	11,981	1,294	11,049	9,949	1,100	2,226	2,032	194	988	1,206	39	1,167
Black	718	707	663	44	551	507	44	156	156	–	11	–	–	–
Asian	925	868	840	28	840	812	28	28	28	–	19	38	–	38
Other[1]	529	500	266	234	490	257	234	10	10	–	20	9	–	9
Biochemists	2,306	2,059	1,896	163	1,894	1,750	143	166	146	20	49	196	113	84
White	2,029	1,832	1,669	163	1,718	1,574	143	115	95	20	10	187	113	74
Black	31	22	22	–	11	11	–	11	11	–	9	–	–	–
Asian	236	205	205	–	165	165	–	40	40	–	31	–	–	–
Other[1]	10	–	–	–	–	–	–	–	–	–	–	10	–	10
Agricultural scientists	2,161	1,970	1,833	136	1,630	1,503	127	339	330	9	153	39	–	39
White	1,857	1,684	1,576	109	1,470	1,361	109	215	215	–	143	29	–	29
Black	22	22	22	–	22	22	–	–	–	–	–	–	–	–
Asian	282	263	236	28	139	121	18	124	115	9	9	9	–	9
Other[1]	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medical scientists	4,167	3,672	2,987	685	2,987	2,726	260	686	261	425	29	466	122	343
White	3,715	3,354	2,669	685	2,692	2,432	260	662	237	425	29	331	122	209
Black	45	45	45	–	34	34	–	12	12	–	–	–	–	–
Asian	359	225	225	–	213	213	–	12	12	–	–	134	–	134
Other[1]	48	48	48	–	48	46	–	–	–	–	–	–	–	–
Psychologists	33,287	30,205	26,401	3,804	23,850	20,449	3,401	6,355	5,953	403	728	2,354	284	2,070
White	31,219	28,331	24,857	3,474	22,219	19,113	3,105	6,112	5,744	368	672	2,215	284	1,932
Black	1,472	1,430	1,128	302	1,311	1,034	277	119	94	25	28	14	–	14
Asian	440	288	269	19	192	173	19	96	96	–	28	124	–	124
Other[1]	156	156	147	9	128	128	–	28	19	9	–	–	–	–
Social scientists	30,339	25,581	21,883	3,698	20,542	17,394	3,149	5,038	4,490	549	1,643	3,116	1,066	2,050
White	26,647	22,096	18,741	3,355	17,559	14,752	2,806	4,538	3,989	549	1,560	2,991	1,066	1,925
Black	2,008	1,980	1,648	332	1,796	1,466	332	182	182	–	27	–	–	–
Asian	959	822	812	10	637	627	10	186	186	–	12	124	–	124
Other[1]	726	682	682	–	549	549	–	133	133	–	44	–	–	–
Economists	5,706	4,626	4,156	470	3,775	3,550	225	851	607	245	281	798	390	408
White	4,972	4,048	3,578	470	3,330	3,105	225	718	474	245	240	683	390	293
Black	173	158	158	–	158	158	–	–	–	–	15	–	–	–
Asian	532	405	405	–	272	272	–	133	133	–	12	115	–	115
Other[1]	29	15	15	–	15	15	–	–	–	–	14	–	–	–
Sociologists / anthropologists	9,353	8,347	6,540	1,807	6,750	5,131	1,619	1,597	1,409	188	583	423	–	423
White	8,755	7,792	6,000	1,792	6,207	4,603	1,605	1,585	1,397	188	540	423	–	423
Black	271	259	244	15	259	244	15	–	–	–	13	–	–	–
Asian	179	179	179	–	167	167	–	12	12	–	–	–	–	–
Other[1]	147	117	117	–	117	117	–	–	–	–	30	–	–	–
Other social scientists	15,282	12,608	11,187	1,421	10,018	8,713	1,304	2,590	2,474	117	779	1,895	676	1,219
White	12,920	10,256	9,163	1,093	8,021	7,045	977	2,234	2,118	117	779	1,886	676	1,210
Black	1,564	1,564	1,246	318	1,381	1,064	318	182	182	–	–	–	–	–
Asian	248	238	228	10	198	188	10	41	41	–	–	9	–	9
Other[1]	550	550	550	–	417	417	–	133	133	–	–	–	–	–

NOTE: Detail may not add to total due to rounding.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-24. Number of Employed Female Scientists and Engineers by Field, Primary Work Activity, and Type of Employer: 1982

Field and Primary Work Activity	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Total, all fields	161,277	76,561	44,860	31,433	6,658	6,769	8,139	8,174	11,732	115	4,982	3,475	709	2,529
Research and devel.	37,666	19,545	8,985	8,813	41	131	666	1,867	4,418	39	1,196	543	215	192
Basic research	8,620	985	5,588	5,588	-	-	134	480	1,181	11	103	32	12	95
Applied research	12,337	5,314	2,994	2,980	-	14	354	973	1,933	10	493	67	129	66
Development/design	16,712	13,247	404	245	41	118	178	414	1,304	19	597	445	74	30
Management/admin.	25,082	13,572	3,472	2,199	739	534	1,441	1,856	1,902	20	1,060	1,056	132	570
Of R & D	8,179	4,976	1,073	693	360	20	386	412	970	-	121	194	32	15
Of other than R & D	16,904	8,596	2,399	1,507	379	514	1,055	1,446	932	20	939	862	100	555
Teaching	27,701	1,301	24,480	18,168	5,606	706	855	524	40	20	249	181	-	51
Consulting	6,146	4,795	715	208	-	507	173	147	154	-	62	32	49	19
Production/inspect.	11,352	7,882	556	318	-	238	342	537	975	-	514	519	28	-
Rpt/stat/comp appl.	30,417	21,647	1,127	1,034	28	64	411	1,142	3,977	36	1,226	625	169	57
Other	18,505	6,376	4,889	365	126	4,398	4,041	1,917	157	-	580	292	117	136
Not reported	4,405	1,443	636	328	117	191	210	183	109	-	93	228	-	1,504
Physical scientists	11,148	6,141	2,950	2,589	339	22	284	324	872	9	384	142	17	45
Research and devel.	5,011	3,046	1,001	989	12	-	50	178	538	9	139	33	17	-
Basic research	1,149	294	612	612	-	-	-	53	145	-	28	17	-	-
Applied research	2,527	1,590	344	344	-	-	50	92	332	-	85	17	17	-
Development/design	1,336	1,162	45	33	12	-	-	33	60	9	26	-	-	-
Management/admin.	1,314	842	143	26	117	-	134	17	137	-	17	26	-	-
Of R & D	468	276	117	-	117	-	-	-	75	-	-	-	-	-
Of other than R & D	846	566	26	26	-	-	134	17	62	-	17	26	-	-
Teaching	1,785	-	1,769	1,537	210	22	-	-	-	-	-	-	-	17
Consulting	150	150	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	1,960	1,481	28	28	-	-	33	17	143	-	194	83	-	-
Rpt/stat/comp appl.	533	323	9	9	-	-	-	113	54	-	33	-	-	-
Other	161	114	-	-	-	-	47	-	-	-	-	-	-	-
Not reported	213	185	-	-	-	-	-	-	-	-	-	-	-	28
Chemists	9,155	5,520	2,022	1,662	339	22	284	274	551	9	310	142	17	45
Research and devel.	4,007	2,767	552	541	12	-	50	128	352	9	98	33	17	-
Basic research	666	219	257	257	-	-	-	36	112	-	26	17	-	-
Applied research	2,121	1,435	267	267	-	-	50	76	217	-	43	17	17	-
Development/design	1,217	1,114	28	17	12	-	-	17	23	9	26	-	-	-
Management/admin.	1,068	683	143	26	117	-	134	17	50	-	17	26	-	-
Of R & D	375	250	117	-	117	-	-	-	8	-	-	-	-	-
Of other than R & D	693	433	26	26	-	-	134	17	42	-	17	26	-	-
Teaching	1,315	-	1,299	1,067	210	22	-	-	-	-	-	-	-	17
Consulting	117	117	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	1,894	1,446	28	28	-	-	33	17	124	-	163	83	-	-
Rpt/stat/comp appl.	390	219	-	-	-	-	-	113	26	-	33	-	-	-
Other	151	104	-	-	-	-	47	-	-	-	-	-	-	-
Not reported	213	185	-	-	-	-	-	-	-	-	-	-	-	28
Physicists / astronomers	1,392	397	833	833	-	-	-	33	118	-	10	-	-	-
Research and devel.	615	142	373	373	-	-	-	33	67	-	-	-	-	-
Basic research	417	58	325	325	-	-	-	17	17	-	-	-	-	-
Applied research	191	75	49	49	-	-	-	17	50	-	-	-	-	-
Development/design	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Management/admin.	190	157	-	-	-	-	-	-	33	-	-	-	-	-
Of R & D	57	23	-	-	-	-	-	-	33	-	-	-	-	-
Of other than R & D	133	133	-	-	-	-	-	-	-	-	-	-	-	-
Teaching	451	-	451	451	-	-	-	-	-	-	-	-	-	-
Consulting	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	45	35	-	-	-	-	-	-	-	-	10	-	-	-
Rpt/stat/comp appl.	82	55	9	9	-	-	-	-	18	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other physical scientists	601	224	94	94	-	-	-	17	203	-	64	-	-	-
Research and devel.	389	137	75	75	-	-	-	17	119	-	42	-	-	-
Basic research	64	17	30	30	-	-	-	-	17	-	-	-	-	-
Applied research	215	80	29	29	-	-	-	-	65	-	42	-	-	-
Development/design	110	40	17	17	-	-	-	17	37	-	-	-	-	-
Management/admin.	57	3	-	-	-	-	-	-	54	-	-	-	-	-
Of R & D	36	3	-	-	-	-	-	-	33	-	-	-	-	-
Of other than R & D	20	-	-	-	-	-	-	-	20	-	-	-	-	-
Teaching	19	-	19	19	-	-	-	-	-	-	-	-	-	-
Consulting	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	42	-	-	-	-	-	-	-	19	-	22	-	-	-
Rpt/stat/comp appl.	61	50	-	-	-	-	-	-	11	-	-	-	-	-
Other	9	9	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mathematical scientists	8,081	3,038	3,197	2,051	1,125	20	167	201	1,168	-	136	30	83	61
Research and devel.	987	435	46	46	-	-	-	28	389	-	32	-	33	23
Basic research	58	28	18	18	-	-	-	-	-	-	-	-	-	12
Applied research	474	160	26	26	-	-	-	8	232	-	12	-	33	-
Development/design	454	246	-	-	-	-	-	20	157	-	20	-	-	12
Management/admin.	1,745	1,352	93	55	18	20	12	71	205	-	12	-	-	-
Of R & D	989	728	20	-	-	20	12	45	173	-	12	-	-	-
Of other than R & D	755	624	73	55	18	-	-	27	31	-	-	-	-	-
Teaching	2,905	18	2,887	1,780	1,107	-	-	-	-	-	-	-	-	-
Consulting	352	316	-	-	-	-	18	-	18	-	-	-	-	-
Production/inspect.	170	152	-	-	-	-	-	-	16	-	-	-	-	-
Rpt/stat/comp appl.	1,696	606	171	171	-	-	137	101	536	-	93	30	20	-
Other	129	129	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	66	30	-	-	-	-	-	-	-	-	-	-	-	36

See Footnotes at end of Table

Table B-24. Number of Employed Female Scientists and Engineers by Field, Primary Work Activity, and Type of Employer: 1982—continued

Field and Primary Work Activity	Total	Business/industry	Educational institutions: Total	Educational institutions: 4-year colleges or univ.	Educational institutions: 2-year colleges	Educational institutions: Elem. & sec. schools	Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
Mathematicians	6,044	2,277	2,708	1,563	1,125	20	117	111	701	-	31	12	27	61
Research and devel.	748	351	18	18	-	-	-	28	290	-	20	-	18	23
Basic research	58	28	18	18	-	-	-	-	-	-	-	-	-	12
Applied research	269	95	-	-	-	-	-	8	147	-	-	-	18	-
Development/design	421	228	-	-	-	-	-	20	142	-	20	-	-	12
Management/admin.	1,503	1,164	93	55	18	20	-	53	193	-	-	-	-	-
Of R & D	796	576	20	-	-	20	-	27	173	-	-	-	-	-
Of other than R & D	707	588	73	55	18	-	-	27	20	-	-	-	-	-
Teaching	2,615	18	2,597	1,490	1,107	-	-	-	-	-	-	-	-	-
Consulting	279	279	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	35	35	-	-	-	-	-	-	-	-	-	-	-	-
Rpt/stat/comp appl.	677	281	-	-	-	-	117	30	218	-	12	12	8	-
Other	129	129	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	58	20	-	-	-	-	-	-	-	-	-	-	-	38
Statisticians	2,007	781	489	489	-	-	50	90	168	-	106	18	27	-
Research and devel.	238	84	28	28	-	-	-	-	100	-	12	-	15	-
Basic research	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Applied research	205	66	28	28	-	-	-	-	85	-	12	-	15	-
Development/design	33	18	-	-	-	-	-	-	15	-	-	-	-	-
Management/admin.	242	188	-	-	-	-	12	18	12	-	12	-	-	-
Of R & D	194	152	-	-	-	-	12	18	-	-	12	-	-	-
Of other than R & D	48	36	-	-	-	-	-	-	12	-	-	-	-	-
Teaching	290	-	290	290	-	-	-	-	-	-	-	-	-	-
Consulting	73	36	-	-	-	-	18	-	18	-	-	-	-	-
Production/inspect.	135	117	-	-	-	-	-	-	18	-	-	-	-	-
Rpt/stat/comp appl.	1,019	325	171	171	-	-	20	71	20	-	81	18	12	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	10	10	-	-	-	-	-	-	-	-	-	-	-	-
Computer specialists	36,438	27,966	2,075	1,674	371	30	308	1,006	3,209	20	1,166	423	135	128
Research and devel.	6,586	4,869	303	283	20	-	70	225	593	-	415	60	36	18
Basic research	157	20	117	117	-	-	-	-	20	-	-	-	-	-
Applied research	603	354	20	20	-	-	-	40	137	-	15	20	-	18
Development/design	5,826	4,495	166	147	20	-	70	185	436	-	400	40	36	-
Management/admin.	3,498	2,776	169	169	-	-	33	41	351	20	79	10	20	-
Of R & D	1,547	1,158	52	52	-	-	-	41	226	-	40	10	20	-
Of other than R & D	1,951	1,618	117	117	-	-	33	-	125	20	40	-	-	-
Teaching	1,549	472	1,027	675	331	20	-	-	40	-	10	-	-	-
Consulting	1,848	1,746	33	33	-	-	-	-	20	-	30	-	20	-
Production/inspect.	934	543	20	20	-	-	-	137	234	-	-	-	-	-
Rpt/stat/comp appl.	21,017	16,647	524	494	20	10	206	605	1,960	-	632	353	60	30
Other	623	623	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	381	290	-	-	-	-	-	-	12	-	-	-	-	80
Environmental scientists	3,066	1,786	348	338	11	-	-	79	657	-	155	17	-	25
Research and devel.	2,015	1,224	187	187	-	-	-	59	449	-	96	-	-	-
Basic research	431	42	142	142	-	-	-	37	210	-	-	-	-	-
Applied research	1,118	765	45	45	-	-	-	22	198	-	88	-	-	-
Development/design	466	416	-	-	-	-	-	-	41	-	8	-	-	-
Management/admin.	287	159	11	11	-	-	-	17	53	-	48	-	-	-
Of R & D	131	72	-	-	-	-	-	17	32	-	11	-	-	-
Of other than R & D	156	87	11	11	-	-	-	-	21	-	37	-	-	-
Teaching	162	11	151	141	11	-	-	-	-	-	-	-	-	-
Consulting	160	131	-	-	-	-	-	-	29	-	-	-	-	-
Production/inspect.	122	95	-	-	-	-	-	-	11	-	-	17	-	-
Rpt/stat/comp appl.	235	123	-	-	-	-	-	-	91	-	11	-	-	11
Other	26	11	-	-	-	-	-	-	15	-	-	-	-	-
Not reported	60	32	-	-	-	-	-	4	11	-	-	-	-	14
Earth scientists	2,571	1,628	346	336	11	-	-	27	375	-	155	17	-	25
Research and devel.	1,631	1,097	184	184	-	-	-	11	244	-	96	-	-	-
Basic research	247	42	142	142	-	-	-	-	63	-	-	-	-	-
Applied research	1,035	755	42	42	-	-	-	11	139	-	88	-	-	-
Development/design	349	299	-	-	-	-	-	-	41	-	8	-	-	-
Management/admin.	276	159	11	11	-	-	-	17	42	-	48	-	-	-
Of R & D	120	72	-	-	-	-	-	17	21	-	11	-	-	-
Of other than R & D	156	87	11	11	-	-	-	-	21	-	37	-	-	-
Teaching	162	11	151	141	11	-	-	-	-	-	-	-	-	-
Consulting	142	131	-	-	-	-	-	-	11	-	-	-	-	-
Production/inspect.	112	85	-	-	-	-	-	-	11	-	-	17	-	-
Rpt/stat/comp appl.	166	102	-	-	-	-	-	-	42	-	11	-	-	11
Other	26	11	-	-	-	-	-	-	15	-	-	-	-	-
Not reported	56	32	-	-	-	-	-	-	11	-	-	-	-	14
Oceanographers	183	127	-	-	-	-	-	24	32	-	-	-	-	-
Research and devel.	169	117	-	-	-	-	-	20	32	-	-	-	-	-
Basic research	41	-	-	-	-	-	-	20	21	-	-	-	-	-
Applied research	11	-	-	-	-	-	-	-	11	-	-	-	-	-
Development/design	117	117	-	-	-	-	-	-	-	-	-	-	-	-
Management/admin.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of R & D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of other than R & D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Teaching	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consulting	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rpt/stat/comp appl.	11	11	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	4	-	-	-	-	-	-	4	-	-	-	-	-	-

See Footnotes at end of Table

Table B-24. Number of Employed Female Scientists and Engineers by Field, Primary Work Activity, and Type of Employer: 1982—continued

Field and Primary Work Activity	Total	Business/industry	Educational institutions: Total	Educational institutions: 4-year colleges or univ.	Educational institutions: 2-year colleges	Educational institutions: Elem. & sec. schools	Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
Atmospheric scientists	312	31	3	3	-	-	-	28	251	-	-	-	-	-
Research and devel.	214	10	3	3	-	-	-	28	174	-	-	-	-	-
Basic research	142	-	-	-	-	-	-	17	125	-	-	-	-	-
Applied research	72	10	3	3	-	-	-	11	48	-	-	-	-	-
Development/design	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Management/admin.	11	-	-	-	-	-	-	-	11	-	-	-	-	-
Of R & D	11	-	-	-	-	-	-	-	11	-	-	-	-	-
Of other than R & D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Teaching	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consulting	18	-	-	-	-	-	-	-	18	-	-	-	-	-
Production/inspect.	11	11	-	-	-	-	-	-	-	-	-	-	-	-
Rpt/stat/comp appl.	59	11	-	-	-	-	-	-	48	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineers	23,737	18,786	1,559	1,107	418	34	70	245	1,438	27	430	339	53	791
Research and devel.	8,136	7,002	227	227	-	-	17	187	487	-	44	128	8	36
Basic research	128	63	31	31	-	-	8	-	25	-	-	-	-	-
Applied research	1,146	786	169	169	-	-	-	41	120	-	11	-	-	18
Development/design	6,865	6,153	27	27	-	-	8	146	342	-	33	128	8	19
Management/admin.	3,393	2,834	-	-	-	-	42	-	295	-	95	69	17	42
Of R & D	1,158	1,034	-	-	-	-	8	-	99	-	8	8	-	-
Of other than R & D	2,235	1,799	-	-	-	-	34	-	196	-	87	61	17	42
Teaching	1,269	240	1,021	728	293	-	-	-	-	-	8	-	-	-
Consulting	995	890	-	-	-	-	-	8	30	-	22	17	18	10
Production/inspect.	4,838	4,042	166	132	-	34	11	25	377	-	136	78	3	-
Rpt/stat/comp appl.	2,929	2,552	26	18	8	-	-	17	203	27	47	41	-	17
Other	788	788	-	-	-	-	-	-	-	-	12	-	8	-
Not reported	1,367	456	120	3	117	-	-	8	46	-	63	8	-	686
Aeronautical / Astronautical	849	623	140	140	-	-	-	-	77	-	-	-	-	8
Research and devel.	508	342	122	122	-	-	-	-	44	-	-	-	-	-
Basic research	17	-	-	-	-	-	-	-	17	-	-	-	-	-
Applied research	166	44	113	113	-	-	-	-	9	-	-	-	-	-
Development/design	325	297	9	9	-	-	-	-	18	-	-	-	-	-
Management/admin.	110	93	-	-	-	-	-	-	17	-	-	-	-	-
Of R & D	68	60	-	-	-	-	-	-	8	-	-	-	-	-
Of other than R & D	41	33	-	-	-	-	-	-	8	-	-	-	-	-
Teaching	18	-	18	18	-	-	-	-	-	-	-	-	-	-
Consulting	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	106	97	-	-	-	-	-	-	8	-	-	-	-	-
Rpt/stat/comp appl.	83	75	-	-	-	-	-	-	-	-	-	-	-	8
Other	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	8	-	-	-	-	-	-	-	8	-	-	-	-	-
Chemical	2,428	2,219	50	33	17	-	-	25	50	-	17	-	-	68
Research and devel.	1,015	990	8	8	-	-	-	8	8	-	-	-	-	-
Basic research	12	12	-	-	-	-	-	-	-	-	-	-	-	-
Applied research	166	141	8	8	-	-	-	8	8	-	-	-	-	-
Development/design	838	838	-	-	-	-	-	-	-	-	-	-	-	-
Management/admin.	250	233	-	-	-	-	-	-	8	-	-	-	-	8
Of R & D	61	61	-	-	-	-	-	-	-	-	-	-	-	-
Of other than R & D	189	172	-	-	-	-	-	-	8	-	-	-	-	8
Teaching	42	-	42	25	17	-	-	-	-	-	-	-	-	-
Consulting	37	29	-	-	-	-	-	8	-	-	-	-	-	-
Production/inspect.	654	613	-	-	-	-	-	8	25	-	8	-	-	-
Rpt/stat/comp appl.	301	284	-	-	-	-	-	-	8	-	8	-	-	-
Other	61	61	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	68	8	-	-	-	-	-	-	-	-	-	-	-	60
Civil	2,301	1,099	161	44	117	-	34	8	430	-	239	230	8	91
Research and devel.	699	431	19	19	-	-	-	-	129	-	33	87	-	-
Basic research	11	8	3	3	-	-	-	-	-	-	-	-	-	-
Applied research	34	9	8	8	-	-	-	-	17	-	-	-	-	-
Development/design	654	413	8	8	-	-	-	-	113	-	33	87	-	-
Management/admin.	323	106	-	-	-	-	34	-	75	-	58	42	-	8
Of R & D	22	14	-	-	-	-	-	-	-	-	-	8	-	-
Of other than R & D	301	92	-	-	-	-	34	-	75	-	58	34	-	8
Teaching	145	3	133	17	117	-	-	-	-	-	8	-	-	-
Consulting	258	193	-	-	-	-	-	-	18	-	22	17	8	-
Production/inspect.	353	156	-	-	-	-	-	8	74	-	80	34	-	-
Rpt/stat/comp appl.	296	105	8	8	-	-	-	-	125	-	17	41	-	-
Other	39	26	-	-	-	-	-	-	-	-	12	-	-	-
Not reported	188	79	-	-	-	-	-	-	8	-	9	8	-	83
Electrical / Electronic	3,432	2,709	196	177	19	-	8	33	229	-	-	8	-	244
Research and devel.	1,650	1,426	18	18	-	-	8	33	128	-	-	8	-	28
Basic research	26	9	8	8	-	-	8	-	-	-	-	-	-	-
Applied research	175	133	-	-	-	-	-	8	17	-	-	-	-	18
Development/design	1,449	1,284	9	9	-	-	-	25	111	-	-	8	-	10
Management/admin.	275	241	-	-	-	-	-	-	25	-	-	-	-	9
Of R & D	120	103	-	-	-	-	-	-	17	-	-	-	-	-
Of other than R & D	155	138	-	-	-	-	-	-	8	-	-	-	-	9
Teaching	204	25	179	160	19	-	-	-	-	-	-	-	-	-
Consulting	80	68	-	-	-	-	-	-	12	-	-	-	-	-
Production/inspect.	527	464	-	-	-	-	-	-	63	-	-	-	-	-
Rpt/stat/comp appl.	235	224	-	-	-	-	-	-	11	-	-	-	-	-
Other	150	150	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	311	104	-	-	-	-	-	-	-	-	-	-	-	207

See Footnotes at end of Table

Table B-24. Number of Employed Female Scientists and Engineers by Field, Primary Work Activity, and Type of Employer: 1982—continued

Field and Primary Work Activity	Total	Business/industry	Educational institutions				Hospitals/clinics	Nonprofit organizations	Federal government	Military/commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Industrial	2,011	1,883	11	3	8	-	11	-	17	8	8	8	3	62
Research and devel.	472	463	-	-	-	-	8	-	-	-	-	-	-	-
Basic research	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Applied research	41	41	-	-	-	-	-	-	-	-	-	-	-	-
Development/design	430	422	-	-	-	-	8	-	-	-	-	-	-	-
Management/admin.	357	324	-	-	-	-	-	-	17	-	8	-	-	8
Of R & D	124	124	-	-	-	-	-	-	-	-	-	-	-	-
Of other than R & D	233	200	-	-	-	-	-	-	17	-	8	-	-	8
Teaching	115	115	-	-	-	-	-	-	-	-	-	-	-	-
Consulting	56	56	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	477	462	-	-	-	-	3	-	-	-	-	8	3	-
Rpt/stat/comp appl.	416	400	8	-	8	-	-	-	-	8	-	-	-	-
Other	36	36	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	81	25	3	3	-	-	-	-	-	-	-	-	-	54
Materials	565	467	-	-	-	-	-	8	53	-	3	-	-	33
Research and devel.	242	223	-	-	-	-	-	-	8	-	3	-	-	8
Basic research	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Applied research	72	61	-	-	-	-	-	-	8	-	3	-	-	-
Development/design	170	162	-	-	-	-	-	-	-	-	-	-	-	8
Management/admin.	104	67	-	-	-	-	-	-	37	-	-	-	-	-
Of R & D	87	50	-	-	-	-	-	-	37	-	-	-	-	-
Of other than R & D	17	17	-	-	-	-	-	-	-	-	-	-	-	-
Teaching	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consulting	9	9	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	152	143	-	-	-	-	-	-	8	-	-	-	-	-
Rpt/stat/comp appl.	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	33	-	-	-	-	-	-	8	-	-	-	-	-	25
Mechanical	3,532	2,683	675	407	234	34	-	17	75	-	8	25	8	40
Research and devel.	1,468	1,342	8	8	-	-	-	17	67	-	-	25	8	-
Basic research	8	-	8	8	-	-	-	-	-	-	-	-	-	-
Applied research	118	84	-	-	-	-	-	8	26	-	-	-	-	-
Development/design	1,341	1,258	-	-	-	-	-	8	41	-	-	25	8	-
Management/admin.	586	586	-	-	-	-	-	-	-	-	-	-	-	-
Of R & D	272	272	-	-	-	-	-	-	-	-	-	-	-	-
Of other than R & D	314	314	-	-	-	-	-	-	-	-	-	-	-	-
Teaching	392	8	383	267	117	-	-	-	-	-	-	-	-	-
Consulting	104	94	-	-	-	-	-	-	-	-	-	-	-	10
Production/inspect.	543	368	166	132	-	34	-	-	-	-	8	-	-	-
Rpt/stat/comp appl.	223	223	-	-	-	-	-	-	-	-	-	-	-	-
Other	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	208	53	117	-	117	-	-	-	8	-	-	-	-	30
Mining	107	79	8	-	8	-	-	-	19	-	-	-	-	-
Research and devel.	31	20	-	-	-	-	-	-	11	-	-	-	-	-
Basic research	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Applied research	11	-	-	-	-	-	-	-	[illegible]	-	-	-	-	-
Development/design	20	20	-	-	-	-	-	-	-	-	-	-	-	-
Management/admin.	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Of R & D	3	3	-	-	-	-	-	-	-	-	-	-	-	-
Of other than R & D	6	6	-	-	-	-	-	-	-	-	-	-	-	-
Teaching	8	-	8	-	8	-	-	-	-	-	-	-	-	-
Consulting	11	11	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	30	22	-	-	-	-	-	-	8	-	-	-	-	-
Rpt/stat/comp appl.	19	19	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	137	112	-	-	-	-	-	8	17	-	-	-	-	-
Research and devel.	58	42	-	-	-	-	-	8	8	-	-	-	-	-
Basic research	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Applied research	33	17	-	-	-	-	-	8	8	-	-	-	-	-
Development/design	26	26	-	-	-	-	-	-	-	-	-	-	-	-
Management/admin.	8	-	-	-	-	-	-	-	8	-	-	-	-	-
Of R & D	8	-	-	-	-	-	-	-	8	-	-	-	-	-
Of other than R & D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Teaching	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Consulting	33	33	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Rpt/stat/comp appl.	20	20	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	383	356	8	8	-	-	-	-	19	-	-	-	-	-
Research and devel.	105	105	-	-	-	-	-	-	-	-	-	-	-	-
Basic research	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Applied research	29	29	-	-	-	-	-	-	-	-	-	-	-	-
Development/design	67	67	-	-	-	-	-	-	-	-	-	-	-	-
Management/admin.	86	86	-	-	-	-	-	-	-	-	-	-	-	-
Of R & D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Of other than R & D	86	86	-	-	-	-	-	-	-	-	-	-	-	-
Teaching	8	-	8	8	-	-	-	-	-	-	-	-	-	-
Consulting	17	17	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	86	86	-	-	-	-	-	-	-	-	-	-	-	-
Rpt/stat/comp appl.	77	58	-	-	-	-	-	-	19	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Footnotes at end of Table

Table B-24. Number of Employed Female Scientists and Engineers by Field, Primary Work Activity, and Type of Employer: 1982—continued

Field and Primary Work Activity	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Other	**7,993**	**6,561**	**309**	**295**	**14**	**-**	**17**	**146**	**442**	**18**	**154**	**68**	**34**	**244**
Research and devel.	1,890	1,618	51	51	-	-	-	121	83	-	8	8	-	-
Basic research	46	26	12	12	-	-	-	-	8	-	-	-	-	-
Applied research	299	227	40	40	-	-	-	8	17	-	8	-	-	-
Development/design	1,545	1,366	-	-	-	-	-	113	58	-	-	8	-	-
Management/admin.	1,284	1,088	-	-	-	-	6	-	109	-	29	26	17	8
Of R & D	394	348	-	-	-	-	6	-	29	-	8	-	-	-
Of other than R & D	891	740	-	-	-	-	-	-	79	-	20	26	17	8
Teaching	329	80	248	234	14	-	-	-	-	-	-	-	-	-
Consulting	382	372	-	-	-	-	-	-	-	-	-	-	9	-
Production/inspect.	1,899	1,618	-	-	-	-	6	8	190	-	41	33	-	-
Rpt/stat/comp appl.	1,234	1,120	9	9	-	-	-	17	40	18	22	-	-	8
Other	485	477	-	-	-	-	-	-	-	-	-	-	8	-
Not reported	488	186	-	-	-	-	-	-	21	-	54	-	-	227
Life scientists	**23,051**	**6,279**	**10,697**	**8,781**	**1,622**	**294**	**1,101**	**887**	**2,414**	**40**	**865**	**482**	**19**	**268**
Research and devel.	9,040	1,967	4,524	4,514	10	-	280	465	1,296	31	301	117	9	51
Basic research	4,794	375	3,400	3,400	-	-	116	233	570	11	60	-	-	29
Applied research	3,251	1,007	1,091	1,091	-	-	118	221	572	10	201	-	9	21
Development/design	995	585	33	23	10	-	46	10	154	10	40	117	-	-
Management/admin.	4,436	2,325	693	323	136	234	273	148	390	-	210	270	-	127
Of R & D	909	654	68	58	9	-	-	21	155	-	-	10	-	-
Of other than R & D	3,527	1,671	625	264	127	234	273	127	235	-	210	260	-	127
Teaching	4,982	13	4,882	3,346	1,476	60	28	19	-	-	10	10	-	20
Consulting	203	135	10	10	-	-	10	-	39	-	10	-	-	-
Production/inspect.	1,533	1,009	21	21	-	-	127	49	149	-	128	41	10	-
Rpt/stat/comp appl.	1,094	326	237	237	-	-	-	8	436	10	49	25	-	-
Other	1,299	483	57	57	-	-	336	198	78	-	128	20	-	-
Not reported	464	19	273	273	-	-	48	-	26	-	29	-	-	69
Biologists	**15,350**	**4,197**	**6,845**	**5,330**	**1,475**	**40**	**614**	**525**	**1,931**	**40**	**629**	**353**	**10**	**205**
Research and devel.	5,501	1,383	2,392	2,382	10	-	108	309	950	31	192	117	-	20
Basic research	2,922	331	1,964	1,964	-	-	58	127	371	11	40	-	-	20
Applied research	1,982	775	399	399	-	-	49	173	435	10	143	-	-	-
Development/design	597	277	29	20	10	-	-	10	144	10	10	117	-	-
Management/admin.	3,241	1,665	363	227	136	-	263	148	332	-	191	153	-	127
Of R & D	763	566	29	20	9	-	-	21	134	-	-	10	-	-
Of other than R & D	2,479	1,097	334	207	127	-	263	127	197	-	191	143	-	127
Teaching	3,612	13	3,560	2,190	1,329	40	9	10	-	-	-	10	-	10
Consulting	156	98	10	10	-	-	10	-	29	-	10	-	-	-
Production/inspect.	965	560	21	21	-	-	117	39	110	-	79	29	10	-
Rpt/stat/comp appl.	1,024	278	228	228	-	-	-	8	427	10	49	25	-	-
Other	436	182	-	-	-	-	69	10	68	-	89	20	-	-
Not reported	415	19	273	273	-	-	38	-	17	-	20	-	-	49
Biochemists	**2,060**	**512**	**1,143**	**1,143**	**-**	**-**	**99**	**106**	**170**	**-**	**10**	**-**	**-**	**20**
Research and devel.	1,127	151	651	651	-	-	66	106	133	-	10	-	-	10
Basic research	872	-	641	641	-	-	29	87	114	-	-	-	-	-
Applied research	208	131	10	10	-	-	10	19	19	-	10	-	-	10
Development/design	47	21	-	-	-	-	26	-	-	-	-	-	-	-
Management/admin.	254	188	40	40	-	-	-	-	26	-	-	-	-	-
Of R & D	29	-	19	19	-	-	-	-	10	-	-	-	-	-
Of other than R & D	225	188	21	21	-	-	-	-	17	-	-	-	-	-
Teaching	452	-	452	452	-	-	-	-	-	-	-	-	-	-
Consulting	10	10	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	36	26	-	-	-	-	-	-	10	-	-	-	-	-
Rpt/stat/comp appl.	10	10	-	-	-	-	-	-	-	-	-	-	-	-
Other	160	127	-	-	-	-	33	-	-	-	-	-	-	-
Not reported	10	-	-	-	-	-	-	-	-	-	-	-	-	10
Agricultural scientists	**1,970**	**670**	**859**	**605**	**127**	**127**	**-**	**144**	**147**	**-**	**119**	**-**	**9**	**21**
Research and devel.	990	187	586	586	-	-	-	10	107	-	70	-	9	21
Basic research	207	34	134	134	-	-	-	-	20	-	10	-	-	10
Applied research	626	29	449	449	-	-	-	10	78	-	39	-	9	12
Development/design	157	123	4	4	-	-	-	-	10	-	21	-	-	-
Management/admin.	340	212	117	-	-	117	-	-	11	-	-	-	-	-
Of R & D	77	77	-	-	-	-	-	-	-	-	-	-	-	-
Of other than R & D	263	135	117	-	-	117	-	-	11	-	-	-	-	-
Teaching	165	-	156	20	127	10	-	9	-	-	-	-	-	-
Consulting	18	18	-	-	-	-	-	-	-	-	-	-	-	-
Production/inspect.	292	224	-	-	-	-	-	10	20	-	39	-	-	-
Rpt/stat/comp appl.	20	10	-	-	-	-	-	-	10	-	-	-	-	-
Other	135	20	-	-	-	-	-	115	-	-	-	-	-	-
Not reported	10	-	-	-	-	-	-	-	-	-	10	-	-	-
Medical scientists	**3,672**	**900**	**1,849**	**1,703**	**20**	**127**	**389**	**113**	**166**	**-**	**108**	**129**	**-**	**20**
Research and devel.	1,423	246	896	896	-	-	106	39	106	-	29	-	-	-
Basic research	794	10	661	661	-	-	28	20	65	-	10	-	-	-
Applied research	435	72	234	234	-	-	59	20	40	-	10	-	-	-
Development/design	194	164	-	-	-	-	20	-	-	-	10	-	-	-
Management/admin.	600	260	173	56	-	117	10	-	21	-	20	117	-	-
Of R & D	40	10	20	20	-	-	-	-	11	-	-	-	-	-
Of other than R & D	560	251	153	36	-	117	10	-	10	-	20	117	-	-
Teaching	752	-	714	684	20	10	19	-	-	-	10	-	-	10
Consulting	20	10	-	-	-	-	-	-	10	-	-	-	-	-
Production/inspect.	240	199	-	-	-	-	10	-	10	-	10	12	-	-
Rpt/stat/comp appl.	41	31	9	9	-	-	-	-	-	-	-	-	-	-
Other	568	154	57	57	-	-	234	74	10	-	39	-	-	-
Not reported	29	-	-	-	-	-	10	-	10	-	-	-	-	10

See Footnotes at end of Table

Table B-24. Number of Employed Female Scientists and Engineers by Field, Primary Work Activity, and Type of Employer: 1982—continued

Field and Primary Work Activity	Total	Business/ industry	Educational institutions				Hospitals/ clinics	Nonprofit organizations	Federal government	Military/ commissioned corps	State government	Other government	Other	Not reported
			Total	4-year colleges or univ.	2-year colleges	Elem. & sec. schools								
Psychologists	30,205	6,677	13,808	6,485	1,390	5,933	4,679	2,186	383	20	907	592	162	811
Research and devel.	2,419	303	1,437	1,306	-	131	118	93	326	-	69	8	-	63
Basic research	957	-	757	757	-	-	9	-	137	-	-	-	-	54
Applied research	1,013	171	563	549	-	14	54	93	123	-	-	-	-	9
Development/design	449	132	118	-	-	118	54	-	66	-	69	8	-	-
Management/admin.	4,537	1,348	1,495	919	351	226	655	509	33	-	244	82	54	117
Of R & D	1,087	414	288	171	117	-	351	-	8	-	13	14	-	-
Of other than R & D	3,450	935	1,208	747	234	226	304	509	25	-	231	68	54	117
Teaching	6,299	368	4,962	3,596	913	453	538	190	-	20	221	-	-	-
Consulting	1,647	735	672	166	-	507	122	108	-	-	-	-	-	9
Production/inspect.	1,123	411	321	117	-	204	-	167	8	-	31	185	-	-
Rpt/stat/comp appl.	340	50	128	74	-	54	68	36	14	-	30	14	-	-
Other	12,826	3,300	4,602	294	126	4,181	3,070	1,064	-	-	313	249	108	122
Not reported	1,014	162	190	14	-	176	108	-	-	-	-	54	-	499
Social scientists	25,581	5,890	10,227	8,406	1,382	438	1,530	3,282	1,570	-	939	1,450	269	403
Research and devel.	3,471	699	1,261	1,261	-	-	132	632	338	-	101	197	111	-
Basic research	947	162	512	512	-	-	-	157	75	-	15	15	12	-
Applied research	2,205	480	734	734	-	-	132	456	219	-	86	30	69	-
Development/design	319	57	15	15	-	-	-	20	45	-	-	152	30	-
Management/admin.	5,872	1,937	869	698	117	54	293	1,055	438	-	355	600	42	284
Of R & D	1,889	640	528	411	117	-	15	289	201	-	38	152	12	15
Of other than R & D	3,983	1,296	341	287	-	54	278	767	237	-	318	448	30	269
Teaching	8,751	179	7,783	6,365	1,265	152	288	315	-	-	-	171	-	15
Consulting	790	692	-	-	-	-	23	30	18	-	-	15	12	-
Production/inspect.	652	149	-	-	-	-	171	14[illegible]	35	-	23	117	15	-
Rpt/stat/comp appl.	2,573	1,016	32	32	-	-	-	2[illegible]	661	-	332	162	89	-
Other	2,653	950	230	14	-	216	569	63[illegible]	65	-	126	23	-	14
Not reported	818	269	53	38	-	15	54	171	15	-	-	166	-	90
Economists	4,626	1,793	1,205	755	450	-	20	333	782	-	144	60	215	75
Research and devel.	1,061	495	90	90	-	-	-	190	165	-	27	30	84	-
Basic research	277	132	15	15	-	-	-	115	15	-	-	-	-	-
Applied research	695	328	60	60	-	-	-	75	120	-	27	30	54	-
Development/design	110	35	15	15	-	-	-	-	30	-	-	-	30	-
Management/admin.	404	162	15	15	-	-	20	15	120	-	27	-	30	15
Of R & D	165	105	15	15	-	-	-	-	15	-	15	-	-	15
Of other than R & D	239	57	-	-	-	-	20	15	105	-	12	-	30	-
Teaching	1,123	8	1,100	650	450	-	-	-	-	-	-	-	-	15
Consulting	300	255	-	-	-	-	-	-	18	-	-	15	12	-
Production/inspect.	53	23	-	-	-	-	-	-	15	-	-	-	15	-
Rpt/stat/comp appl.	1,427	703	-	-	-	-	-	113	434	-	90	15	74	-
Other	162	132	-	-	-	-	-	15	15	-	-	-	-	-
Not reported	75	15	-	-	-	-	-	-	15	-	-	-	-	45
Sociologists / anthropologists	8,347	1,774	4,474	3,868	453	153	259	1,019	305	-	225	147	27	117
Research and devel.	1,592	102	860	860	-	-	15	412	115	-	45	15	27	-
Basic research	640	30	482	482	-	-	-	42	45	-	15	15	12	-
Applied research	905	60	379	379	-	-	15	351	55	-	30	-	15	-
Development/design	47	12	-	-	-	-	-	20	15	-	-	-	-	-
Management/admin.	2,407	1,162	425	425	-	-	117	391	132	-	48	15	-	117
Of R & D	877	322	396	396	-	-	-	142	15	-	3	-	-	-
Of other than R & D	1,529	840	30	30	-	-	117	249	117	-	45	15	-	117
Teaching	3,260	-	3,128	2,537	453	138	117	15	-	-	-	-	-	-
Consulting	30	15	-	-	-	-	-	15	-	-	-	-	-	-
Production/inspect.	132	117	-	-	-	-	-	15	-	-	-	-	-	-
Rpt/stat/comp appl.	424	15	15	15	-	-	-	117	44	-	117	117	-	-
Other	173	133	-	-	-	-	11	-	15	-	15	-	-	-
Not reported	329	230	45	30	-	15	-	54	-	-	-	-	-	-
Other social scientists	12,606	2,323	4,548	3,784	480	284	1,271	1,911	503	-	570	1,244	27	211
Research and devel.	798	102	310	310	-	-	117	30	58	-	29	152	-	-
Basic research	30	-	15	15	-	-	-	-	15	-	-	-	-	-
Applied research	606	92	295	295	-	-	117	30	43	-	29	-	-	-
Development/design	162	10	-	-	-	-	-	-	-	-	-	152	-	-
Management/admin.	3,062	612	428	257	117	54	156	650	186	-	280	585	12	152
Of R & D	847	213	117	-	117	-	15	147	171	-	20	152	12	-
Of other than R & D	2,215	399	311	257	-	54	141	503	15	-	261	433	-	152
Teaching	4,368	171	3,555	3,178	363	14	171	300	-	-	-	171	-	-
Consulting	460	422	-	-	-	-	23	15	-	-	-	[illegible]	-	-
Production/inspect.	466	8	-	-	-	-	171	127	20	-	23	117	-	-
Rpt/stat/comp appl.	721	299	17	17	-	-	-	32	204	-	125	30	15	-
Other	2,318	685	230	14	-	216	579	640	35	-	113	23	-	14
Not reported	415	24	8	8	-	-	54	117	-	-	-	166	-	45

NOTE: Detail may not add to total due to rounding.

Source: National Science Foundation.

Table B-25. Median Annual Salary of Employed Scientists and Engineers by Field, Highest Degree, and Type of Employer: 1982

Field and Highest Degree	Total	Business/industry	4-year colleges/universities	2-year colleges	Nonprofit organizations	Federal government	State government	Other government	Other¹
Total, all fields	**$36,300**	**$36,800**	**$34,800**	**$30,800**	**$34,800**	**$35,800**	**$27,100**	**$30,300**	**$30,200**
Doctorate	39,200	45,400	36,600	35,300	40,700	40,800	30,900	31,300	32,800
Professional/medical	53,200	53,000	60,000	**	**	**	**	**	**
Master's	36,200	39,000	26,100	30,500	29,900	36,200	26,300	30,100	28,200
Bachelor's	34,700	35,400	24,600	28,600	34,800	34,100	27,400	30,700	30,100
Associate	29,300	30,000	**	**	**	30,200	25,700	27,600	**
Other	**	**	**	**	**	**	**	**	**
No degree	30,900	31,100	32,500	**	26,800	32,600	26,800	27,800	26,400
Physical scientists	**36,400**	**37,900**	**36,400**	**30,300**	**37,900**	**37,800**	**22,200**	**22,700**	**28,600**
Doctorate	40,800	46,100	36,500	**	43,300	41,300	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	34,300	36,700	23,300	**	**	37,300	**	**	**
Bachelor's	31,600	32,900	11,300	**	**	35,300	20,500	23,000	**
Chemists	**35,100**	**36,800**	**34,300**	**	**34,800**	**35,700**	**22,100**	**22,400**	**23,400**
Doctorate	40,800	45,700	35,900	**	**	40,700	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	32,300	34,300	**	**	**	33,600	**	**	**
Bachelor's	30,600	32,000	**	**	**	33,300	20,000	22,800	**
Physicists / astronomers	**40,700**	**46,800**	**37,200**	**	**42,700**	**40,200**	**	**	**
Doctorate	41,200	49,200	37,500	**	42,900	42,700	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	39,100	44,200	**	**	**	**	**	**	**
Bachelor's	40,800	44,200	**	**	**	**	**	**	**
Other physical scientists	**37,200**	**39,200**	**33,700**	**	**	**39,900**	**	**	**
Doctorate	40,900	43,000	35,000	**	**	41,600	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	36,100	36,600	**	**	**	37,600	**	**	**
Bachelor's	[illegible]	30,900	**	**	**	36,200	**	**	**
Mathematical scientists	[illegible]	[illegible]	**36,600**	**30,800**	**42,400**	**36,800**	**24,100**	**	**22,700**
Doctorate	38,300	41,500	37,800	**	**	40,400	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	32,800	38,800	26,300	30,600	**	35,200	**	**	**
Bachelor's	38,900	40,600	**	**	**	36,100	**	**	**
Mathematicians	**37,600**	**40,800**	**37,000**	**30,800**	**	**36,000**	**	**	**
Doctorate	38,600	41,000	38,300	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	33,400	40,500	24,100	30,500	**	35,600	**	**	**
Bachelor's	[illegible]	41,000	**	**	**	36,500	**	**	**
Statisticians	**34,200**	**34,900**	**34,800**	**	**	**35,700**	**24,100**	**	**
Doctorate	37,500	44,400	36,600	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	30,700	30,300	**	**	**	34,[illegible]00	**	**	**
Bachelor's	29,600	**	**	**	**	**	**	**	**
Computer specialists	**32,800**	**33,400**	**28,200**	**35,700**	**30,800**	**35,100**	**26,600**	**28,900**	**30,400**
Doctorate	39,300	40,300	36,700	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	35,300	36,200	26,400	**	30,200	35,800	27,400	**	32,800
Bachelor's	31,500	31,900	24,100	**	30,800	34,000	25,800	29,000	30,000
Environmental scientists	**38,600**	**46,900**	**32,800**	**	**	**34,900**	**26,600**	**	**
Doctorate	38,900	53,400	34,500	**	**	37,000	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	40,800	46,900	27,100	**	**	33,500	25,400	**	**
Bachelor's	38,200	45,300	**	**	**	31,700	26,000	**	**
Earth scientists	**40,600**	**48,200**	**32,800**	**	**	**34,400**	**28,200**	**	**
Doctorate	39,700	54,000	33,700	**	**	43,500	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	40,900	47,700	25,300	**	**	31,300	25,300	**	**
Bachelor's	40,500	46,700	**	**	**	30,800	25,700	**	**
Oceanographers	**35,200**	**	**	**	**	**33,900**	**	**	**
Doctorate	**	**	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	42,400	**	**	**	**	**	**	**	**
Bachelor's	**	**	**	**	**	**	**	**	**
Atmospheric scientists	**35,800**	**38,300**	**	**	**	**36,600**	**	**	**
Doctorate	37,800	**	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	35,400	**	**	**	**	35,000	**	**	**
Bachelor's	28,900	**	**	**	**	32,500	**	**	**

See Footnotes at end of Table

Table B-25. Median Annual Salary of Employed Scientists and Engineers by Field, Highest Degree, and Type of Employer: 1982—continued

Field and Highest Degree	Total	Business/industry	4-year colleges/universities	2-year colleges	Nonprofit organizations	Federal government	State government	Other government	Other[1]
Engineers	$36,100	$36,300	$38,200	$32,800	$40,200	$36,100	$29,800	$32,100	$33,800
Doctorate	45,200	47,400	42,500	**	48,200	42,000	**	**	**
Professional/medical	36,700	38,100	**	**	**	**	**	**	**
Master's	39,600	40,200	33,800	30,500	40,400	37,700	32,000	35,200	40,300
Bachelor's	35,700	36,100	29,500	33,400	37,400	35,600	30,300	32,700	32,000
Associate	29,300	30,000	**	**	**	30,200	25,700	27,600	**
Other	**	**	**		**	**	**	**	**
No degree	30,900	31,100	32,500	**	28,800	32,600	26,800	27,800	28,400
Aeronautical / Astronautical	38,900	38,800	47,200	**	**	41,100	**	**	**
Doctorate	46,500	46,200	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	41,500	41,100	**	**	**	42,200	**	**	**
Bachelor's	38,200	37,400	**	**	**	41,200	**	**	**
Associate	33,600	33,200	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**
No degree	35,900	35,800	**	**	**	**	**	**	**
Chemical	40,800	40,700	36,900	**	**	36,400	**	**	**
Doctorate	49,400	52,000	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	43,100	43,500	**	**	**	**	**	**	**
Bachelor's	39,100	39,500	**	**	**	35,100	**	**	**
Associate	**	**	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**
No degree	31,600	31,600	**	**	**	**	**	**	**
Civil	33,900	35,800	38,300	**	36,000	33,900	30,000	31,200	35,000
Doctorate	45,700	48,600	47,100	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	36,500	37,900	**	**	**	36,000	32,600	35,200	**
Bachelor's	33,200	35,200	**	**	**	33,700	30,400	32,000	30,500
Associate	26,900	30,100	**	**	**	**	25,900	**	**
Other	**	**	**	**	**	**	**	**	**
No degree	28,300	30,500	**	**	**	30,800	26,400	27,700	**
Electrical / Electronic	36,800	36,800	37,600	33,800	40,500	36,200	32,100	35,[illegible]	30,200
Doctorate	50,500	50,700	46,900	**	**	50,200	**	**	**
Professional/medical	38,900	42,400	**	**	**	**	**	**	**
Master's	40,300	40,600	32,600	**	41,000	36,000	**	**	**
Bachelor's	36,100	36,200	30,000	**	38,100	36,100	**	36,300	28,500
Associate	30,200	30,300	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**
No degree	31,300	31,000	**	**	**	35,900	**	**	**
Industrial	32,300	32,000	**	**	**	36,700	**	**	27,800
Doctorate	43,400	**	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	37,000	37,000	**	**	**	**	**	**	**
Bachelor's	32,400	32,400	**	**	**	35,200	**	**	**
Associate	26,400	26,200	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**
No degree	27,500	27,400	**	**	**	**	**	**	**
Materials	37,800	37,800	41,300	**	**	36,500	**	**	**
Doctorate	43,000	40,700	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	40,100	40,000	**	**	**	**	**	**	**
Bachelor's	36,000	38,700	**	**	**	**	**	**	**
Associate	**	**	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**
No degree	32,800	32,800	**	**	**	**	**	**	**
Mechanical	36,600	36,900	38,900	**	42,200	35,700	**	35,300	34,200
Doctorate	42,200	45,300	40,500	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	40,000	40,200	33,500	**	40,700	39,400	**	**	**
Bachelor's	36,500	36,[illegible]	**	**	**	35,300	**	36,100	35,800
Associate	30,100	30,000	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**
No degree	32,100	32,100	**	**	**	**	**	**	**
Mining	40,800	40,400	**	**	**	**	**	**	**
Doctorate	**	**	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	50,200	50,300	**	**	**	**	**	**	**
Bachelor's	36,700	40,000	**	**	**	**	**	**	**
Associate	**	**	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**
No degree	**	**	**	**	**	**	**	**	**
Nuclear	40,300	40,100	**	**	**	41,000	**	**	**
Doctorate	44,000	**	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	40,800	41,000	**	**	**	**	**	**	**
Bachelor's	38,800	37,800	**	**	**	39,600	**	**	**
Associate	**	**	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**
No degree	**	**	**	**	**	**	**	**	**
Petroleum	50,700	51,200	**	**	**	**	**	**	**
Doctorate	**	**	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	53,000	54,300	**	**	**	**	**	**	**
Bachelor's	50,400	51,200	**	**	**	**	**	**	**
Associate	**	**	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**
No degree	42,100	42,100	**	**	**	**	**	**	**

See Footnot[illegible]

Table B-25. Median Annual Salary of Employed Scientists and Engineers by Field, Highest Degree, and Type of Employer: 1982—continued

Field and Highest Degree	Total	Business/industry	4-year colleges/universities	2-year colleges	Nonprofit organizations	Federal government	State government	Other government	Other[1]
Other	**$36,000**	**$35,100**	**$38,400**	**	**$38,600**	**$35,700**	**$27,900**	**$31,300**	**$33,300**
Doctorate	41,700	44,500	40,100	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	38,000	34,800	36,200	**	38,400	37,600	27,800	33,300	40,100
Bachelor's	35,000	35,200	**	**	**	35,000	28,400	31,900	34,800
Associate	28,700	29,000	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**
No degree	30,900	31,500	**	**	**	30,700	27,800	**	26,800
Life scientists	**30,800**	**32,000**	**33,700**	**32,000**	**34,700**	**28,900**	**22,700**	**24,200**	**31,600**
Doctorate	36,400	43,000	34,800	30,700	35,200	40,100	26,100	**	40,200
Professional/medical	60,400	**	60,400	**	**	**	**	**	**
Master's	26,900	30,600	23,700	32,100	26,000	28,400	22,600	24,500	26,500
Bachelor's	26,600	30,400	18,600	**	23,200	25,400	22,300	21,200	30,300
Biologists	**29,500**	**30,200**	**33,400**	**32,100**	**33,100**	**27,300**	**22,400**	**24,100**	**30,400**
Doctorate	36,200	40,900	35,000	30,300	34,500	40,400	26,000	**	40,700
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	26,400	30,100	19,800	32,100	25,200	27,700	22,800	**	25,500
Bachelor's	25,300	27,200	12,800	**	**	25,200	22,000	22,200	30,600
Biochemists	**34,400**	**40,300**	**30,600**	**	**33,400**	**40,400**	**	**	**37,400**
Doctorate	35,800	45,200	32,800	**	**	40,300	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	30,600	35,400	**	**	**	**	**	**	**
Bachelor's	**	**	**	**	**	**	**	**	**
Agricultural scientists	**31,100**	**33,900**	**31,700**	**	**	**30,700**	**23,000**	**	**
Doctorate	36,300	40,800	34,000	**	**	39,200	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	26,700	31,300	26,100	**	**	30,200	22,300	**	**
Bachelor's	30,600	33,300	**	**	**	27,900	22,800	**	**
Medical scientists	**41,800**	**49,000**	**41,700**	**	**	**42,400**	**	**	**31,600**
Doctorate	37,600	50,600	37,200	**	**	35,100	**	**	**
Professional/medical	61,400	**	61,500	**	**	**	**	**	**
Master's	46,200	37,500	62,500	**	**	**	**	**	**
Bachelor's	26,600	**	**	**	**	**	**	**	**
Psychologists	**30,500**	**36,300**	**32,100**	**30,700**	**20,500**	**38,600**	**26,100**	**27,000**	**29,200**
Doctorate	33,100	40,800	33,100	**	29,100	38,600	31,800	**	30,300
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	26,300	35,400	22,800	**	19,500	**	20,300	**	26,400
Bachelor's	30,500	32,000	**	**	**	**	**	**	**
Social scientists	**34,300**	**38,500**	**34,000**	**32,100**	**28,300**	**40,000**	**25,500**	**24,400**	**28,800**
Doctorate	37,800	43,500	36,600	41,100	41,400	41,900	20,800	**	51,900
Professional/medical	61,300	**	**	**	**	**	**	**	**
Master's	29,700	40,100	25,400	29,600	25,900	40,200	26,800	25,700	23,800
Bachelor's	32,300	35,300	**	**	34,100	33,100	25,000	**	**
Economists	**40,000**	**40,900**	**36,900**	**29,600**	**46,600**	**40,800**	**28,900**	**	**60,900**
Doctorate	41,000	52,000	38,100	**	41,500	44,200	**	**	60,100
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	37,700	46,500	26,500	**	50,600	40,300	28,300	**	54,500
Bachelor's	36,700	38,700	**	**	**	34,600	**	**	**
Sociologists / anthropologists	**29,400**	**30,100**	**30,400**	**41,200**	**23,700**	**29,600**	**22,300**	**	**
Doctorate	32,300	**	32,100	**	30,100	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	24,500	30,000	25,100	**	**	**	**	**	**
Bachelor's	27,700	30,200	**	**	**	**	**	**	**
Other social scientists	**31,000**	**34,000**	**34,100**	**35,200**	**25,900**	**40,000**	**27,300**	**24,700**	**21,900**
Doctorate	37,500	**	37,500	**	**	41,200	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**
Master's	25,800	29,900	25,000	**	25,400	40,900	27,700	25,800	21,900
Bachelor's	30,300	32,700	**	**	**	**	**	**	**

**Fewer than 20 sample cases reported.

[1] Includes Elementary and Secondary Schools, Hospitals/Clinics, Military/Commissioned Corps, other Type of Employer, and Not Reported.

Source: National Science Foundation.

Table B-26. Median Annual Salary of Employed Scientists and Engineers by Field, Highest Degree, and Primary Work Activtiy: 1982

Field and Highest Degree	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Total, all fields	$35,300	$34,000	$33,800	$36,200	$33,800	$41,800	$46,100	$40,200	$33,300	$36,400	$31,300	$31,000
Doctorate	39,200	39,300	36,400	40,200	40,800	48,100	51,200	43,000	35,500	42,100	37,800	35,200
Professional/medical	53,200	44,900	**	50,200	36,100	57,400	**	61,700	56,900	**	**	42,600
Master's	36,200	35,500	24,600	33,400	36,100	44,200	47,400	41,300	27,000	36,700	33,300	31,500
Bachelor's	34,700	32,800	27,200	30,900	33,000	40,400	43,200	39,700	28,300	35,700	31,700	30,900
Associate	29,300	29,000	**	30,500	28,900	32,700	36,100	32,200	**	34,400	27,800	26,100
Other	**	**	**	**	**	**	**	**	**	**	**	**
No degree	30,900	30,900	**	32,100	30,900	35,400	36,300	34,500	30,300	34,300	29,400	30,200
Physical scientists	36,400	34,900	33,900	36,400	32,400	45,900	50,300	40,100	34,800	36,100	27,800	32,800
Doctorate	40,800	39,900	36,100	41,400	39,400	51,200	52,300	44,700	35,900	**	**	41,900
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	34,300	32,800	25,300	34,000	34,100	41,800	44,800	36,000	25,900	**	30,200	33,000
Bachelor's	31,600	30,300	26,200	30,300	30,900	40,600	49,400	37,000	**	**	25,900	30,600
Chemists	36,100	33,100	30,800	34,500	32,700	44,200	48,200	38,900	34,700	**	27,200	31,900
Doctorate	40,800	36,600	34,200	39,600	39,300	50,200	52,300	44,600	36,300	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	32,300	31,600	30,300	33,000	31,500	37,300	40,900	35,100	**	**	29,900	**
Bachelor's	30,600	29,900	25,400	29,500	30,700	40,200	46,700	35,900	**	**	26,000	29,500
Physicists / astronomers	40,700	40,300	38,200	43,400	36,800	50,400	51,900	43,800	36,100	**	**	**
Doctorate	41,200	42,400	3[illegible],500	44,700	36,400	55,000	53,500	**	35,800	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	39,100	36,500	**	**	**	48,200	48,500	**	**	**	**	**
Bachelor's	40,800	33,600	**	**	**	46,900	52,100	40,300	**	**	**	**
Other physical scientists	37,200	37,500	37,400	38,600	34,500	46,300	49,400	40,200	**	**	25,100	32,100
Doctorate	40,900	41,400	41,700	39,900	**	47,300	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	36,100	34,100	**	35,200	**	40,400	**	**	**	**	**	**
Bachelor's	32,100	33,000	**	36,600	**	**	**	**	**	**	**	**
Mathematical scientists	36,900	37,900	39,800	38,800	36,500	44,400	46,700	41,800	34,100	32,200	30,300	32,100
Doctorate	38,300	40,400	40,600	40,600	**	51,000	61,200	**	36,600	**	**	38,500
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	32,600	34,100	**	33,700	34,600	44,300	43,400	50,000	29,300	**	**	30,200
Bachelor's	38,900	32,500	**	**	39,600	43,300	46,800	41,600	**	**	**	32,200
Mathematicians	37,600	38,000	38,900	38,300	36,600	44,500	47,300	42,100	33,600	**	30,800	32,400
Doctorate	38,600	40,500	40,700	40,700	**	51,400	**	**	37,000	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	33,400	33,200	**	32,900	33,800	44,100	43,000	50,200	28,600	**	**	30,200
Bachelor's	40,300	34,000	**	**	40,100	43,800	47,700	41,400	**	**	**	32,700
Statisticians	34,200	37,400	**	38,100	**	42,800	43,700	**	34,700	**	**	31,400
Doctorate	37,500	**	**	**	**	**	**	**	36,000	**	**	40,500
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	30,700	**	**	**	**	**	**	**	**	**	**	30,200
Bachelor's	29,800	**	**	**	**	**	**	**	**	**	**	24,100
Computer specialists	32,800	34,400	**	35,500	33,800	37,300	38,000	36,400	30,300	37,600	30,500	31,100
Doctorate	39,300	43,700	**	**	38,900	41,100	**	**	32,500	**	**	35,800
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	35,300	36,200	**	35,900	36,500	40,200	4[illegible],100	37,000	26,700	37,600	37,400	33,100
Bachelor's	31,500	32,100	**	29,100	32,200	36,000	36,500	35,700	26,800	36,600	29,200	30,600
Environmental scientists	39,600	36,200	35,700	34,900	40,600	52,800	50,800	54,400	34,800	41,000	36,900	31,500
Doctorate	38,800	38,000	40,500	37,300	**	51,900	52,000	51,800	34,300	53,100	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	40,600	36,000	25,300	35,000	42,800	54,100	50,800	57,200	38,100	36,600	36,500	39,400
Bachelor's	38,200	34,900	30,600	32,600	37,600	51,200	47,700	53,500	**	44,500	37,700	30,200
Earth scientists	40,600	36,700	36,100	34,800	42,400	54,800	51,200	58,300	36,000	46,200	38,800	31,800
Doctorate	39,700	39,400	37,100	40,400	**	51,500	51,000	52,400	34,600	53,100	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	40,900	36,700	**	34,900	44,200	59,200	54,600	61,500	**	40,100	36,900	40,900
Bachelor's	40,500	36,100	35,600	33,000	39,400	54,400	48,600	60,800	**	49,900	39,100	30,100
Oceanographers	35,200	33,400	**	**	**	**	**	**	**	**	**	**
Doctorate	**	**	**	**	**	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	42,400	**	**	**	**	**	**	**	**	**	**	**
Bachelor's	**	**	**	**	**	**	**	**	**	**	**	**
Atmospheric scientists	36,500	36,800	36,400	34,900	**	43,800	**	36,800	**	**	33,700	31,900
Doctorate	37,600	37,500	**	**	**	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	35,400	30,200	**	**	**	**	**	**	**	**	**	**
Bachelor's	28,900	**	**	**	**	**	**	**	**	**	**	31,000

See Footnotes at end of Table

Table B-26. Median Annual Salary of Employed Scientists and Engineers by Field, Highest Degree, and Primary Work Activity: 1982—continued

Field and Highest Degree	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Engineers	$36,100	$34,100	$34,800	$36,800	$33,800	$43,600	$46,800	$41,000	$36,700	$36,600	$32,100	$32,300
Doctorate	45,200	43,200	50,000	42,800	43,000	52,700	53,800	46,800	41,300	44,300	40,700	42,400
Professional/medical	40,700	36,800	**	**	38,100	47,000	**	**	**	**	**	**
Master's	39,600	36,300	30,500	36,400	36,300	46,900	49,300	45,300	33,700	37,800	34,800	35,400
Bachelor's	35,700	33,300	34,100	34,200	33,300	42,100	44,900	40,800	30,500	35,800	32,500	32,300
Associate	28,300	29,000	**	30,500	28,900	32,700	38,100	32,200	**	34,400	27,800	26,100
Other	**	**	**	**	**	**	**	**	**	**	**	**
No degree	30,900	30,900	**	32,100	30,900	35,400	38,300	34,800	30,300	34,300	29,400	30,200
Aeronautical / Astronautical	39,900	37,100	**	38,800	36,700	46,300	47,800	43,000	**	**	33,800	35,300
Doctorate	46,500	43,400	**	42,500	**	52,200	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	41,500	38,800	**	39,700	[illegible]	49,400	50,300	46,700	**	**	38,400	39,500
Bachelor's	38,200	37,000	**	36,500	36,900	43,400	46,000	40,700	**	**	32,800	35,200
Associate	33,800	31,800	**	**	31,800	**	**	**	**	**	**	**
Other	**	**	**	**	**		**	**	**	**	**	**
No degree	36,900	36,200	**	**	36,200	42,100	40,800	**	**	**	**	**
Chemical	40,600	36,800	**	39,800	38,800	51,400	50,200	52,000	**	45,900	34,800	36,000
Doctorate	49,400	44,700	**	44,200	45,400	61,100	53,800	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	43,100	38,800	**	32,300	37,000	52,900	49,800	54,000	**	**	38,700	36,700
Bachelor's	39,100	36,000	**	36,800	36,000	49,000	49,000	49,000	**	**	33,500	33,200
Associate	**	**	**	**	**	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**	**	**	**
No degree	31,600	33,200	**	**	3[illegible],700	**	**	**	**	**	**	**
Civil	33,900	30,500	**	32,800	3[illegible],400	38,800	40,300	38,300	36,800	35,300	30,800	30,100
Doctorate	45,700	39,100	**	**	**	54,900	**	**	**	43,900	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	36,500	32,800	**	**	32,900	42,300	45,000	42,200	**	36,100	35,400	32,700
Bachelor's	33,200	30,200	**	28,600	30,200	37,300	36,500	37,400	**	34,000	31,100	30,100
Associate	26,900	26,400	**	**	26,400	30,500	**	30,600	**	**	25,100	**
Other	**	**	**	**	**	**	**	**	**	**	**	**
No degree	28,300	27,000	**	**	27,200	33,400	**	33,400	**	33,300	28,800	[illegible],300
Electrical / Electronic	36,800	34,700	36,400	36,400	34,600	45,800	48,000	42,800	37,300	37,800	32,300	33,300
Doctorate	50,500	45,300	**	44,400	44,100	56,700	55,700	**	44,100	**	**	**
Professional/medical	38,900	**	**	**	**	**	**	**	**	**	**	**
Master's	40,300	36,700	**	37,300	36,700	49,100	51,400	45,200	40,300	40,100	34,700	35,400
Bachelor's	36,100	33,800	**	33,100	33,700	44,100	45,800	42,200	30,400	36,900	32,900	34,100
Associate	30,200	30,100	**	**	30,100	36,300	**	35,000	**	**	27,900	**
Other	**	**	**	**	**	**	**	**	**	**	**	**
No degree	31,300	31,400	**	**	31,400	37,100	36,700	35,100	**	37,200	[illegible]	28,500
Industrial	32,200	28,800	**	**	28,600	40,000	40,300	38,400	36,200	37,700	30,100	30,800
Doctorate	43,400	**	**	**	**	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	37,000	32,400	**	**	32,500	43,500	**	42,700	**	**	31,700	35,900
Bachelor's	32,400	29,200	**	**	29,200	40,000	38,000	40,100	**	35,800	30,100	30,500
Associate	26,400	25,300	**	**	25,300		**	**	**	**	27,200	**
Other	**	**	**	**	**	**	**	**	**	**	**	**
No degree	27,500	26,400	**	**	26,400	30,200	**	28,400	**	**	26,700	26,400
Materials	37,800	34,100	**	32,800	34,800	46,900	48,400	41,300	**	**	31,800	36,100
Doctorate	43,000	37,700	**	**	40,300	50,200	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	40,100	35,900	**	**	37,100	47,700	48,600	**	**	**	**	**
Bachelor's	36,000	32,200	**	31,500	32,200	45,200	46,200	41,100	**	**	31,100	**
Associate	**	**	**	**	**	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**	**	**	**
No degree	32,800	33,000	**	**	**	**	**	**	**	**	**	**
Mechanical	36,600	33,800	**	36,300	33,500	44,600	45,800	44,100	35,400	36,600	33,300	32,300
Doctorate	42,200	42,000	**	43,100	39,800	47,100	55,700	**	40,400	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	40,000	36,100	**	36,500	36,100	47,300	48,300	46,700	32,300	41,600	38,200	33,700
Bachelor's	36,500	33,300	**	34,000	33,200	44,500	44,700	44,500	**	36,900	33,500	31,800
Associate	30,100	28,800	**	**	28,900	32,600	**	**	**	**	30,300	**
Other	**	**	**	**	**	**	**	**	**	**	**	**
No degree	32,100	31,900	**	**	31,900	36,500	38,800	35,900	**	32,700	29,800	**
Mining	40,800	40,000	**	**	38,800	60,700	**	49,900	**	**	33,900	34,300
Doctorate	**	**	**	**	**	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	50,200	**	**	**	**	**	**	**	**	**	**	**
Bachelor's	38,700	35,000	**	**	37,200	51,400	**	50,200	**	**	34,500	34,100
Associate	**	**	**	**	**	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**	**	**	**
No degree	**	**	**	**	**	**	**	**	**	**	**	**
Nuclear	40,3[illegible]0	38,300	**	35,300	37,400	46,700	48,800	45,600	**	**	34,800	**
Doctorate	44,000	**	**	**	**	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	40,800	[illegible]8,000	**	**	38,200	47,100	**	45,300	**	**	**	**
Bachelor's	38,800	35,300	**	**	35,600	45,700	**	44,000	**	**	34,100	**
Associate	**	**	**	**	**	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**	**	**	**
No degree	**	**	**	**	**	**	**	**	**	**	**	**
Petroleum	50,700	45,300	**	**	43,000	63,300	**	66,100	**	61,800	46,100	42,700
Doctorate	**	**	**	**	**	**	**	**	**	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	53,000	**	**	**	**	**	**	**	**	**	**	**
Bachelor's	50,400	42,900	**	**	46,200	64,700	**	67,700	**	57,700	44,600	45,000
Associate	**	**	**	**	**	**	**	**	**	**	**	**
Other	**	**	**	**	**	**	**	**	**	**	**	**
No degree	42,100	**	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-26. Median Annual Salary of Employed Scientists and Engineers by Field, Highest Degree, and Primary Work Activity: 1982—continued

Field and Highest Degree	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Other	$35,600	$34,800	$33,900	$36,500	$33,700	$40,400	$43,400	$38,400	$36,800	$36,800	$31,400	$32,100
Doctorate	41,700	43,800	**	44,100	43,300	42,300	46,600	36,800	40,200	42,800	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	38,000	36,300	**	36,900	36,800	44,100	46,700	42,400	**	38,200	32,700	35,200
Bachelor's	35,000	33,800	**	34,500	33,600	40,200	42,300	39,300	**	35,000	32,400	32,200
Associate	28,700	29,000	**	**	28,400	33,000	**	32,700	**	**	27,500	28,100
Other	**	**	**	**	**	**	**	**	**	**	**	**
No degree	30,900	30,900	**	32,500	30,800	34,600	32,500	35,200	**	33,600	30,400	30,800
Life scientists	30,800	30,800	32,100	30,300	27,700	32,900	40,800	30,900	33,800	26,100	25,800	25,800
Doctorate	36,400	35,200	33,800	36,200	40,500	46,100	46,700	42,700	34,300	**	37,800	30,400
Professional/medical	60,400	56,800	**	**	**	**	**	**	58,400	**	**	**
Master's	26,900	24,900	21,600	25,600	27,300	30,600	33,000	29,500	28,600	24,300	25,500	23,800
Bachelor's	26,600	22,800	14,300	23,000	24,800	30,300	33,900	30,100	[illegible]	24,900	25,200	25,000
Biologists	28,800	29,100	31,200	27,800	25,900	30,900	37,000	30,000	32,800	24,900	24,600	24,900
Doctorate	36,200	35,600	34,400	36,900	**	45,200	46,700	42,100	34,200	**	**	29,300
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	26,400	24,300	21,000	24,500	26,900	29,300	29,800	28,700	28,300	24,000	24,700	25,600
Bachelor's	25,300	22,300	12,700	23,600	23,600	28,400	23,800	26,900	**	22,400	24,200	21,900
Biochemists	34,400	32,200	30,800	33,200	**	48,900	80,100	**	33,700	**	**	**
Doctorate	35,800	33,800	32,000	39,500	**	50,700	**	**	33,700	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	30,800	24,400	**	**	**	**	**	**	**	**	**	**
Bachelor's	**	**	**	**	**	**	**	**	**	**	**	**
Agricultural scientists	31,100	30,500	29,500	30,400	31,600	36,000	41,600	36,100	32,600	**	29,400	30,200
Doctorate	36,300	33,800	30,100	35,100	**	47,800	**	**	33,600	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	26,700	28,700	**	26,600	**	29,500	32,500	28,200	**	**	**	**
Bachelor's	30,600	27,500	**	23,100	31,100	35,600	35,400	35,700	**	**	28,600	35,600
Medical scientists	41,800	38,000	37,600	47,600	**	52,900	56,700	48,200	45,400	**	**	32,700
Doctorate	37,600	36,600	38,500	40,600	**	43,700	**	**	38,200	**	**	**
Professional/medical	61,400	62,000	**	**	**	**	**	**	60,000	**	**	**
Master's	46,200	26,800	**	**	**	**	**	**	**	**	**	**
Bachelor's	28,600	**	**	**	**	**	**	**	**	**	**	**
Psychologists	30,500	30,800	34,100	31,800	28,000	35,300	37,100	35,100	30,800	33,800	30,200	28,800
Doctorate	33,100	32,200	[illegible]	33,900	**	36,700	34,100	38,300	30,900	36,400	**	32,100
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	26,300	24,000	**	**	**	35,500	**	33,700	26,200	**	30,300	24,900
Bachelor's	30,500	**	**	**	**	32,900	**	32,500	**	**	**	26,400
Social scientists	34,300	33,900	33,100	33,800	37,800	37,100	40,800	36,300	32,300	42,800	30,700	30,300
Doctorate	37,800	37,500	35,000	36,900	48,200	44,100	41,100	44,800	35,600	49,300	**	34,500
Professional/medical	61,300	**	**	**	**	**	**	**	**	**	**	**
Master's	29,700	30,400	18,600	30,700	31,300	36,200	45,900	35,500	24,100	42,100	18,500	29,400
Bachelor's	32,300	27,100	**	26,900	**	33,200	36,000	32,800	**	**	34,200	30,000
Economists	40,000	40,800	44,000	38,800	51,100	42,200	47,800	40,800	34,600	51,100	36,400	40,300
Doctorate	[illegible]	[illegible]	44,600	42,600	**	47,300	51,200	45,700	36,900	50,900	**	[illegible]
Professional/medical	[illegible]	**	**	**	**	**	**	**	**	**	**	[illegible]
Master's	[illegible]	[illegible]	**	35,400	**	46,900	51,000	45,200	26,300	42,500	**	[illegible]
Bachelor's	[illegible]	[illegible]	**	25,600	**	38,900	**	[illegible]	**	**	36,100	[illegible]
Sociologists / anthropologists	29,400	29,000	32,000	26,000	**	30,300	36,800	[illegible]	30,100	**	**	20,000
Doctorate	32,300	31,700	33,200	27,000	**	41,400	37,400	**	[illegible]	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	24,500	23,000	**	**	**	25,600	**	**	23,000	**	**	**
Bachelor's	27,700	**	**	**	**	30,000	**	29,400	**	**	**	**
Other social scientists	31,000	32,800	**	33,800	**	35,400	36,800	35,100	34,600	**	25,100	23,800
Doctorate	37,500	36,500	**	36,600	**	42,800	**	45,000	35,800	**	**	**
Professional/medical	**	**	**	**	**	**	**	**	**	**	**	**
Master's	25,800	27,300	**	**	**	33,200	**	33,300	23,000	**	**	22,200
Bachelor's	30,300	**	**	**	**	30,800	32,900	30,400	**	**	**	23,800

**Fewer than 20 sample cases reported.

[1] Includes Report Writing, Statistical Work, Computer Applications, Other, and Not Reported

Source: National Science Foundation

Table B-27. Median Annual Salary of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Type of Employer: 1982

Field and Area of Critical National Interest	Total	Business/ industry	4-year colleges/ universities	2-year colleges	Nonprofit organizations	Federal government	State government	Other government	Other[1]
Total, all fields	**$35,300**	**$36,000**	**$34,000**	**$30,800**	**$34,500**	**$35,500**	**$27,100**	**$30,300**	**$30,200**
Energy and fuel	38,500	40,000	40,100	**	40,600	37,600	31,100	33,400	38,400
Health	32,100	36,300	33,800	**	31,100	33,800	25,800	27,800	27,500
Environment	32,000	36,000	32,700	**	34,000	30,600	24,400	30,200	32,000
Teaching	34,000	36,600	34,900	30,200	**	**	**	**	25,200
Education,non-teach	33,400	33,500	39,400	39,600	21,100	32,800	27,600	**	28,900
National defense	37,100	37,900	38,800	**	42,300	35,800	**	**	32,800
Crime prevention	28,600	33,400	**	**	**	**	25,200	24,400	**
Food	32,900	33,700	30,600	**	**	34,000	25,000	**	**
Other mineral resources	36,700	36,900	**	**	**	32,400	28,100	**	**
Community development	30,700	33,800	18,500	**	21,200	34,200	28,500	30,200	29,000
Housing	32,300	32,500	**	**	**	33,100	22,600	31,000	**
Does not apply	34,800	36,100	28,800	**	33,200	38,000	28,200	31,300	32,900
Not reported	36,200	36,900	38,600	**	**	35,700	27,500	27,800	32,000
Physical scientists	**36,400**	**37,900**	**36,400**	**30,300**	**37,900**	**37,800**	**22,200**	**22,700**	**28,500**
Energy and fuel	42,100	41,500	47,200	**	**	40,300	**	**	**
Health	34,100	35,400	37,300	**	**	33,900	**	**	**
Environment	32,500	34,800	**	**	**	39,600	20,800	**	**
Teaching	34,900	**	36,500	28,700	**	**	**	**	**
Education,non-teach	42,200	**	**	**	**	**	**	**	**
National defense	40,800	43,200	**	**	**	39,200	**	**	**
Crime prevention	30,000	**	**	**	**	**	**	**	**
Food	29,500	29,000	**	**	**	**	**	**	**
Other mineral resources	35,200	36,200	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	36,200	37,800	17,100	**	**	38,700	**	**	**
Not reported	36,700	40,400	**	**	**	**	**	**	**
Chemists	**35,100**	**36,800**	**34,200**	**	**34,600**	**35,700**	**22,100**	**22,400**	**23,400**
Energy and fuel	40,200	40,100	**	**	**	**	**	**	**
Health	32,300	36,000	**	**	**	34,300	**	**	**
Environment	31,300	36,300	**	**	**	**	**	**	**
Teaching	34,500	**	35,100	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	40,100	42,600	**	**	**	36,900	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	31,300	32,400	**	**	**	**	**	**	**
Other mineral resources	34,600	35,400	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	34,700	35,500	**	**	**	**	**	**	**
Not reported	36,300	40,200	**	**	**	**	**	**	**
Physicists / astronomers	**46,700**	**46,600**	**37,200**	**	**42,700**	**40,200**	**	**	**
Energy and fuel	46,800	50,100	**	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**
Teaching	35,300	**	35,900	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	44,000	44,400	**	**	**	38,100	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	43,900	47,900	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**
Other physical scientists	**37,200**	**39,200**	**33,700**	**	**	**39,900**	**	**	**
Energy and fuel	41,900	41,700	**	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**
Environment	32,900	30,700	**	**	**	40,100	**	**	**
Teaching	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	40,400	40,200	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	38,500	40,100	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**
Mathematical scientists	**36,900**	**40,400**	**36,800**	**30,800**	**42,400**	**38,500**	**34,100**	**	**32,700**
Energy and fuel	38,700	40,000	**	**	**	**	**	**	**
Health	32,500	30,900	31,800	**	**	37,400	**	**	**
Environment	**	**	**	**	**	**	**	**	**
Teaching	35,000	**	37,000	30,400	**	**	**	**	**
Education,non-teach	38,200	**	**	**	**	**	**	**	**
National defense	42,300	44,900	**	**	**	35,800	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	38,900	40,200	**	**	**	40,400	**	**	**
Not reported	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-27. **Median Annual Salary of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Type of Employer: 1982**—continued

Field and Area of Critical National Interest	Total	Business/ industry	4-year colleges/ universities	2-year colleges	Nonprofit organizations	Federal government	State government	Other government	Other¹
Mathematicians	$37,800	$40,900	$37,000	$30,800	**	$38,900	**	**	**
Energy and fuel	41,300	42,200	**	**	**	**	**	**	**
Health	32,200	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**
Teaching	35,100	**	37,400	30,400	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	42,700	45,000	**	**	**	36,100	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	40,400	40,500	**	**	**	42,100	**	**	**
Not reported	**	**	**	**	**	**	**	**	**
Statisticians	34,200	34,900	34,800	**	**	36,700	24,100	**	**
Energy and fuel	34,300	**	**	**	**	**	**	**	**
Health	33,700	30,200	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**
Teaching	34,600	**	34,700	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	34,200	35,300	**	**	**	36,700	**	**	**
Not reported	**	**	**	**	**	**	**	**	**
Computer specialists	32,800	33,400	28,200	26,700	30,800	35,100	28,800	28,900	30,400
Energy and fuel	35,700	35,900	**	**	**	**	**	**	**
Health	30,400	30,800	**	**	**	**	**	**	30,100
Environment	33,900	**	**	**	**	**	**	**	**
Teaching	32,100	36,100	32,000	**	**	**	**	**	**
Education,non-teach	28,200	35,600	26,000	**	**	**	**	**	**
National defense	34,000	34,900	**	**	**	32,900	**	**	**
Crime prevention	30,700	**	**	**	**	**	**	**	**
Food	32,600	32,400	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	30,300	30,500	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	32,800	32,900	27,900	**	31,600	36,000	26,500	29,100	31,300
Not reported	30,500	30,900	**	**	**	**	**	**	**
Environmental scientists	38,800	46,800	32,900	**	**	34,900	26,600	**	**
Energy and fuel	49,000	51,100	**	**	**	35,500	26,900	**	**
Health	**	**	**	**	**	**	**	**	**
Environment	31,800	35,300	35,100	**	**	33,300	25,300	**	**
Teaching	34,600	**	32,900	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	34,600	**	**	**	**	34,600	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	32,900	35,500	**	**	**	34,300	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	35,900	48,700	**	**	**	35,600	**	**	**
Not reported	43,000	**	**	**	**	**	**	**	**
Earth scientists	40,600	48,200	32,900	**	**	34,400	26,200	**	**
Energy and fuel	49,200	51,300	**	**	**	35,500	26,900	**	**
Health	**	**	**	**	**	**	**	**	**
Environment	30,800	36,900	**	**	**	29,200	25,000	**	**
Teaching	34,100	**	31,000	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	34,600	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	32,900	35,500	**	**	**	34,300	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	31,200	50,300	**	**	**	31,300	**	**	**
Not reported	43,300	**	**	**	**	**	**	**	**
Oceanographers	36,200	**	**	**	**	33,900	**	**	**
Energy and fuel	**	**	**	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**
Environment	34,200	**	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	**	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**

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Table B-27. Median Annual Salary of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Type of Employer: 1982—continued

Field and Area of Critical National Interest	Total	Business/industry	4-year colleges/universities	2-year colleges	Nonprofit organizations	Federal government	State government	Other government	Other¹
Atmospheric scientists	**$35,800**	**$36,300**	**	**	**	**$35,800**	**	**	**
Energy and fuel	**	**	**	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**
Environment	31,900	**	**	**	**	34,800	**	**	**
Teaching	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	37,200	**	**	**	**	36,300	**	**	**
Not reported	**	**	**	**	**	**	**	**	**
Engineers	**36,100**	**36,300**	**38,300**	**32,800**	**40,200**	**36,100**	**29,800**	**32,100**	**33,800**
Energy and fuel	38,900	39,200	39,600	**	40,300	37,800	31,500	36,400	36,400
Health	34,000	35,500	33,400	**	**	33,200	**	**	28,400
Environment	34,200	35,700	**	**	**	33,900	26,700	32,100	**
Teaching	37,500	35,600	39,500	32,200	**	**	**	**	**
Education,non-teach	37,300	28,000	41,000	**	**	**	**	**	**
National defense	37,100	37,900	42,200	**	42,900	35,900	**	**	30,900
Crime prevention	32,700	32,500	**	**	**	**	**	**	**
Food	35,100	34,900	**	**	**	**	**	**	**
Other mineral resources	37,100	37,800	**	**	**	**	**	**	**
Community development	31,700	33,500	**	**	**	33,100	28,000	30,700	**
Housing	31,800	32,300	**	**	**	31,400	**	31,000	**
Does not apply	36,200	36,300	33,300	**	35,[illegible]00	39,900	30,100	32,800	33,800
Not reported	36,100	36,100	**	**	**	38,000	29,000	30,700	**
Aeronautical / Astronautical	**39,900**	**38,800**	**47,200**	**	**	**41,100**	**	**	**
Energy and fuel	43,400	43,100	**	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	39,000	39,300	**	**	**	37,200	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	39,900	37,000	**	**	**	43,100	**	**	**
Not reported	39,800	**	**	**	**	**	**	**	**
Chemical	**40,800**	**40,700**	**36,800**	**	**	**36,400**	**	**	**
Energy and fuel	43,400	43,300	**	**	**	**	**	**	**
Health	39,800	39,500	**	**	**	**	**	**	**
Environment	40,000	40,300	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	35,800	35,800	**	**	**	35,400	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	42,300	42,000	**	**	**	**	**	**	**
Other mineral resources	40,100	40,300	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	40,200	40,200	**	**	**	**	**	**	**
Not reported	41,200	41,900	**	**	**	**	**	**	**
Civil	**33,900**	**36,800**	**39,300**	**	**38,000**	**33,900**	**30,000**	**31,200**	**35,000**
Energy and fuel	37,000	37,800	**	**	**	35,700	27,300	**	**
Health	34,300	38,800	**	**	**	**	**	**	**
Environment	33,300	35,800	**	**	**	34,100	30,100	33,700	**
Teaching	35,400	**	36,500	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	32,900	38,700	**	**	**	32,400	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	32,800	**	**	**	**	**	**	**	**
Other mineral resources	36,600	38,400	**	**	**	**	**	**	**
Community development	30,900	31,900	**	**	**	33,000	28,300	30,900	**
Housing	30,900	32,000	**	**	**	30,800	**	29,300	**
Does not apply	33,800	35,700	**	**	**	35,700	30,300	33,100	**
Not reported	33,900	35,700	**	**	**	**	**	**	**
Electrical / Electronic	**36,600**	**36,800**	**37,800**	**33,800**	**40,800**	**36,200**	**32,100**	**35,200**	**30,200**
Energy and fuel	36,900	36,900	**	**	**	35,300	**	37,900	**
Health	35,300	36,300	**	**	**	**	**	**	**
Environment	30,900	31,000	**	**	**	**	**	**	**
Teaching	36,100	37,200	36,900	33,600	**	**	**	**	**
Education,non-teach	31,000	**	**	**	**	**	**	**	**
National defense	38,300	39,400	**	**	42,400	38,100	**	**	28,700
Crime prevention	**	**	**	**	**	**	**	**	**
Food	31,600	31,600	**	**	**	**	**	**	**
Other mineral resources	32,600	32,900	**	**	**	**	**	**	**
Community development	34,200	35,000	**	**	**	**	**	**	**
Housing	36,200	36,400	**	**	**	**	**	**	**
Does not apply	38,000	36,100	34,100	**	35,700	39,300	**	**	**
Not reported	38,500	34,600	**	**	**	**	**	**	**

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Table B-27. Median Annual Salary of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Type of Employer: 1982—continued

Field and Area of Critical National Interest	Total	Business/industry	4-year colleges/universities	2-year colleges	Nonprofit organizations	Federal government	State government	Other government	Other[1]
Industrial	$32,300	$32,000	**	**	**	$36,700	**	**	$27,500
Energy and fuel	36,900	36,800	**	**	**	**	**	**	**
Health	31,900	32,400	**	**	**	**	**	**	**
Environment	36,600	36,400	**	**	**	**	**	**	**
Teaching	35,300	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	34,900	34,800	**	**	**	35,200	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	31,000	31,000	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	40,000	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	30,700	30,600	**	**	**	**	**	**	**
Not reported	32,200	32,100	**	**	**	**	**	**	**
Materials	37,800	37,800	41,300	**	**	36,800	**	**	**
Energy and fuel	39,100	40,100	**	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	36,200	36,700	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	35,900	36,400	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	37,100	37,200	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**
Mechanical	36,800	36,800	38,800	**	42,200	36,700	**	35,300	34,200
Energy and fuel	36,700	36,900	**	**	45,900	35,600	**	**	**
Health	35,500	36,400	**	**	**	**	**	**	**
Environment	36,100	36,300	**	**	**	**	**	**	**
Teaching	40,100	**	40,200	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	36,600	37,000	**	**	**	35,400	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	35,100	34,600	**	**	**	**	**	**	**
Other mineral resources	36,700	37,000	**	**	**	**	**	**	**
Community development	35,700	43,400	**	**	**	**	**	**	**
Housing	35,400	34,800	**	**	**	**	**	**	**
Does not apply	35,600	35,700	**	**	**	36,300	**	**	**
Not reported	36,100	40,100	**	**	**	**	**	**	**
Mining	40,800	40,400	**	**	**	**	**	**	**
Energy and fuel	41,300	41,200	**	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	36,800	36,000	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	**	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**
Nuclear	40,300	40,100	**	**	**	41,000	**	**	**
Energy and fuel	40,400	40,300	**	**	**	44,000	**	**	**
Health	**	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	38,700	**	**	**	**	34,900	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	[illegible]	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	**	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**
Petroleum	50,700	51,200	**	**	**	**	**	**	**
Energy and fuel	51,000	51,500	**	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	**	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-27. **Median Annual Salary of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Type of Employer: 1982**—continued

Field and Area of Critical National Interest	Total	Business/industry	4-year colleges/universities	2-year colleges	Nonprofit organizations	Federal government	State government	Other government	Other¹
Other	**$36,000**	**$35,100**	**$38,400**	**	**$38,800**	**$36,700**	**$27,900**	**$31,300**	**$33,300**
Energy and fuel	36,800	36,900	**	**	**	35,200	**	**	**
Health	31,800	32,500	**	**	**	**	**	**	**
Environment	32,700	34,700	**	**	**	32,200	28,200	32,100	**
Teaching	36,300	35,700	36,900	**	**	**	**	**	**
Education,non-teach	37,000	**	**	**	**	**	**	**	**
National defense	36,300	36,200	**	**	42,100	36,400	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	34,200	33,100	**	**	**	**	**	**	**
Other mineral resources	40,100	37,900	**	**	**	**	**	**	**
Community development	31,800	33,100	**	**	**	**	**	**	**
Housing	30,600	30,600	**	**	**	**	**	**	**
Does not apply	33,900	33,900	**	**	38,700	42,500	27,400	**	31,400
Not reported	35,000	34,100	**	**	**	**	**	**	**
Life scientists	**30,800**	**32,000**	**33,700**	**32,000**	**34,700**	**28,900**	**22,700**	**24,200**	**31,600**
Energy and fuel	35,200	36,400	**	**	**	33,100	**	**	**
Health	34,100	35,400	34,500	**	42,100	32,700	24,100	**	31,300
Environment	25,800	27,700	30,700	**	34,000	26,100	22,100	24,600	**
Teaching	34,000	**	35,000	30,600	**	**	**	**	**
Education,non-teach	38,600	**	39,500	**	**	**	**	**	**
National defense	36,500	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	31,900	32,900	30,500	**	**	32,800	25,200	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	30,000	30,900	21,400	**	**	30,400	23,600	**	**
Not reported	27,700	**	32,200	**	**	**	**	**	**
Biologists	**29,500**	**30,200**	**33,400**	**32,100**	**33,100**	**27,300**	**22,400**	**24,100**	**30,400**
Energy and fuel	32,100	33,400	**	**	**	31,300	**	**	**
Health	30,600	31,800	33,000	**	35,400	27,600	22,800	**	30,100
Environment	25,400	25,900	32,700	**	**	25,900	22,200	24,500	**
Teaching	32,400	**	31,700	30,800	**	**	**	**	**
Education,non-teach	34,300	**	34,900	**	**	**	**	**	**
National defense	40,100	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	30,700	30,900	32,300	**	**	29,900	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	29,400	30,900	20,900	**	**	29,800	22,800	**	**
Not reported	25,300	**	**	**	**	**	**	**	**
Biochemists	**34,400**	**40,300**	**30,600**	**	**33,400**	**40,400**	**	**	**37,400**
Energy and fuel	**	**	**	**	**	**	**	**	**
Health	34,900	40,800	28,600	**	**	35,800	**	**	37,600
Environment	**	**	**	**	**	**	**	**	**
Teaching	33,800	**	33,800	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	30,200	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**
Agricultural scientists	**31,100**	**33,900**	**31,700**	**	**	**30,700**	**23,000**	**	**
Energy and fuel	**	**	**	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**
Environment	26,300	**	**	**	**	27,700	22,000	**	**
Teaching	32,700	**	33,200	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	32,200	33,300	29,700	**	**	36,500	26,100	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	30,700	32,200	**	**	**	**	23,700	**	**
Not reported	**	**	**	**	**	**	**	**	**
Medical scientists	**41,800**	**49,000**	**41,700**	**	**	**42,400**	**	**	**31,800**
Energy and fuel	**	**	**	**	**	**	**	**	**
Health	44,800	52,800	47,100	**	**	39,100	**	**	31,800
Environment	**	**	**	**	**	**	**	**	**
Teaching	45,300	**	43,800	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	**	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-27. Median Annual Salary of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Type of Employer: 1982—continued

Field and Area of Critical National Interest	Total	Business/ industry	4-year colleges/ universities	2-year colleges	Nonprofit organizations	Federal government	State government	Other government	Other[1]
Psychologists	**$30,900**	**$36,300**	**$32,100**	**$30,700**	**$20,500**	**$36,600**	**$26,100**	**$27,000**	**$28,200**
Energy and fuel	**	**	**	**	**	**	**	**	**
Health	30,100	40,100	34,700	**	21,500	**	26,100	**	26,000
Environment	**	**	**	**	**	**	**	**	**
Teaching	30,400	**	31,300	**	**	**	**	**	**
Education,non-teach	30,200	**	34,300	**	**	**	**	**	30,100
National defense	33,900	**	**	**	**	**	**	**	**
Crime prevention	25,900	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	23,700	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	32,800	35,100	**	**	**	**	**	**	29,000
Not reported	31,800	**	**	**	**	**	**	**	**
Social scientists	**34,300**	**38,800**	**34,000**	**32,100**	**28,300**	**40,000**	**25,500**	**24,400**	**28,500**
Energy and fuel	34,700	35,700	**	**	**	40,000	**	**	**
Health	30,000	42,500	30,100	**	34,600	36,600	**	**	22,000
Environment	30,200	30,100	**	**	**	35,100	19,700	**	**
Teaching	32,900	**	33,300	29,800	**	**	**	**	**
Education,non-teach	40,800	**	44,300	**	**	**	**	**	**
National defense	38,700	37,700	**	**	**	40,400	**	**	**
Crime prevention	24,800	**	**	**	**	**	**	**	**
Food	37,800	37,400	**	**	**	41,800	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	29,100	44,500	**	**	21,000	**	**	**	**
Housing	51,100	50,200	**	**	**	**	**	**	**
Does not apply	35,800	35,700	39,900	**	24,900	40,500	22,800	**	53,300
Not reported	40,700	52,000	**	**	**	**	**	**	**
Economists	**40,000**	**48,900**	**39,900**	**29,600**	**46,800**	**40,600**	**26,800**	**	**60,900**
Energy and fuel	40,800	42,800	**	**	**	40,100	**	**	**
Health	41,700	43,600	**	**	**	**	**	**	**
Environment	36,000	**	**	**	**	**	**	**	**
Teaching	36,000	**	36,400	29,700	**	**	**	**	**
Education,non-teach	41,700	**	44,400	**	**	**	**	**	**
National defense	35,500	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	40,900	40,700	**	**	**	41,800	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	50,400	**	**	**	**	**	**	**	**
Housing	54,800	**	**	**	**	**	**	**	**
Does not apply	40,200	38,400	41,300	**	48,400	40,800	26,900	**	62,500
Not reported	51,500	**	**	**	**	**	**	**	**
Sociologists / anthropologists	[illegible]	**30,100**	**30,400**	**41,200**	**23,700**	**29,600**	**22,300**	**	**
Energy and fuel	**	**	**	**	**	**	**	**	**
Health	30,400	**	27,900	**	**	**	**	**	**
Environment	20,700	**	**	**	**	**	**	**	**
Teaching	29,800	**	30,000	**	**	**	**	**	**
Education,non-teach	40,800	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**
Crime prevention	24,300	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	29,100	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	30,200	30,500	33,400	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**
Other social scientists	**31,000**	**34,000**	**34,100**	**35,200**	**25,800**	**40,000**	**27,300**	**24,700**	**21,900**
Energy and fuel	**	**	**	**	**	**	**	**	**
Health	25,900	**	**	**	**	**	**	**	20,900
Environment	36,900	**	**	**	**	**	**	**	**
Teaching	32,600	**	33,000	**	**	**	**	**	**
Education,non-teach	40,200	**	45,000	**	**	**	**	**	**
National defense	41,400	**	**	**	**	42,600	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**
Community development	24,300	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**
Does not apply	32,800	33,600	**	**	**	42,300	**	**	**
Not reported	**	**	**	**	**	**	**	**	**

**Fewer than 20 sample cases reported.

[1] Includes Elementary and Secondary Schools, Hospitals/Clinics, Military/Commissioned Corps, other Type of Employer, and Not Reported.

Source: National Science Foundation.

Table B-28. Median Annual Salary of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Primary Work Activity: 1982

Field and Area of Critical National Interest	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Total, all fields	$35,300	$34,000	$33,800	[illegible]	$33,800	$41,800	$46,100	$40,200	$33,300	$36,400	$31,300	[illegible]
Energy and fuel	39,500	36,300	38,800	[illegible]	35,800	48,300	50,300	47,200	42,100	41,200	35,300	[illegible]
Health	32,100	31,800	32,400	31,000	31,800	39,400	43,700	36,300	32,000	33,500	26,800	[illegible]
Environment	32,000	30,500	28,500	28,400	31,200	36,600	37,500	35,100	36,200	33,200	29,500	30,300
Teaching	34,000	37,800	39,900	37,400	32,100	40,400	45,600	39,300	33,400	**	**	37,300
Education,non-teach	33,400	28,700	38,900	33,000	25,800	40,400	39,400	40,500	30,900	26,800	26,700	27,400
National defense	37,100	35,900	40,000	36,900	35,700	44,500	47,800	40,500	30,400	40,000	32,000	32,900
Crime prevention	28,800	27,800	**	**	27,200	33,800	**	30,400	**	**	23,300	23,700
Food	32,900	31,500	31,000	32,600	31,100	39,100	48,200	36,700	32,400	31,200	28,600	30,100
Other mineral resources	35,700	32,700	38,000	31,700	32,800	44,000	39,600	50,200	**	40,200	31,000	33,600
Community development	30,700	29,600	**	29,300	30,000	35,900	37,200	35,800	**	30,600	28,300	26,700
Housing	32,300	29,100	**	**	29,100	38,400	30,700	36,700	**	31,100	30,400	31,700
Does not apply	34,800	33,200	30,900	35,600	33,000	40,700	45,700	39,100	27,600	36,700	30,800	31,000
Not reported	35,200	32,500	31,900	36,000	32,200	42,500	41,800	42,800	31,000	40,300	30,400	31,800
Physical scientists	36,400	34,800	33,800	36,400	33,400	45,900	53,300	40,100	34,800	36,100	27,800	32,800
Energy and fuel	42,100	37,800	38,100	40,300	34,600	51,600	54,300	40,800	**	**	30,700	**
Health	34,100	32,600	25,600	33,500	34,100	44,100	46,400	35,000	**	**	24,300	29,500
Environment	32,500	34,600	**	34,500	35,200	40,100	39,900	40,500	**	**	25,700	**
Teaching	34,900	44,300	44,800	**	**	**	**	**	34,400	**	**	**
Education,non-teach	42,200	**	**	**	**	**	**	**	**	**	**	**
National defense	40,800	37,500	**	39,300	35,800	49,200	50,400	43,700	**	**	33,100	**
Crime prevention	30,000	**	**	**	**	**	**	**	**	**	**	**
Food	29,500	31,700	**	32,700	**	35,600	**	**	**	**	25,100	**
Other mineral resources	36,200	33,500	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	38,200	33,200	30,900	35,400	32,600	45,900	51,800	37,400	**	**	30,400	30,700
Not reported	38,700	36,000	**	**	**	**	**	**	**	**	**	**
Chemists	35,100	33,100	29,800	34,800	32,700	44,200	48,200	38,900	34,700	**	27,200	31,800
Energy and fuel	40,200	35,000	**	34,600	35,100	48,900	51,600	**	**	**	31,200	**
Health	32,300	31,500	24,600	33,100	34,400	44,200	47,200	35,100	**	**	24,200	**
Environment	31,300	34,000	**	25,800	35,300	40,700	40,500	41,200	**	**	25,900	**
Teaching	34,500	**	**	**	**	**	**	**	34,200	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	40,100	34,400	**	35,100	**	50,900	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	31,300	32,600	**	35,900	**	35,700	**	**	**	**	24,500	**
Other mineral resources	34,600	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	34,700	32,500	25,200	34,300	31,600	42,900	49,900	36,000	**	**	30,300	**
Not reported	36,300	35,300	**	**	**	**	**	**	**	**	**	**
Physicists / astronomers	46,700	40,300	38,200	43,400	36,800	50,400	51,900	43,800	35,100	**	**	**
Energy and fuel	46,800	42,000	**	**	**	56,300	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**	**	**	**
Teaching	35,300	**	**	**	**	**	**	**	34,900	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	44,000	39,800	**	44,500	36,500	45,600	48,900	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	43,900	38,500	32,100	**	**	51,300	53,400	40,300	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**	**	**	**
Other physical scientists	37,200	37,800	37,400	39,800	34,500	46,300	48,400	40,200	**	**	25,100	32,100
Energy and fuel	41,900	37,700	**	38,100	**	**	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**	**	**	**
Environment	32,900	35,300	**	**	**	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	40,400	39,900	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	38,500	33,400	**	**	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**	**	**	**
Mathematical scientists	36,900	37,900	39,800	39,800	30,800	44,400	46,700	41,800	34,100	32,200	30,300	32,100
Energy and fuel	36,700	**	**	**	**	**	**	**	**	**	**	33,300
Health	32,500	**	**	**	**	34,400	**	**	**	**	**	30,500
Environment	**	**	**	**	**	**	**	**	**	**	**	**
Teaching	35,000	40,800	48,100	**	**	**	**	**	33,900	**	**	**
Education,non-teach	36,200	**	**	**	**	**	**	**	**	**	**	**
National defense	42,300	37,100	**	36,600	36,400	47,400	49,100	44,400	**	**	**	30,500
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	36,900	35,700	**	35,400	42,100	42,000	46,500	39,400	**	**	**	33,800
Not reported	**	**	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-28. Median Annual Salary of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Primary Work Activity: 1982—continued

Field and Area of Critical National Interest	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & develop -ment	Of other than R & D				
Mathematicians	$37,800	$38,000	$39,900	$38,200	$38,800	$44,500	$47,300	$42,100	$33,800	**	$30,500	$32,400
Energy and fuel	41,300	**	**	**	**	**	**	**	**	**	**	**
Health	32,200	**	**	**	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**	**	**	**
Teaching	35,100	40,800	48,100	**	**	**	**	**	33,800	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	42,700	38,900	**	38,700	38,000	47,400	49,100	44,400	**	**	**	[illegible]0,800
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	40,400	35,600	**	**	42,100	41,800	47,500	39,200	**	**	**	35,000
Not reported	**	**	**	**	**	**	**	**	**	**	**	**
Statisticians	34,200	37,400	**	38,100	**	42,800	43,700	**	34,700	**	**	31,400
Energy and fuel	34,300	**	**	**	**	**	**	**	**	**	**	**
Health	33,700	**	**	**	**	**	**	**	**	**	**	30,700
Environment	**	**	**	**	**	**	**	**	**	**	**	**
Teaching	34,600	**	**	**	**	**	**	**	34,200	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	34,200	**	**	**	**	**	**	**	**	**	**	31,400
Not reported	**	**	**	**	**	**	**	**	**	**	**	**
Computer specialists	32,800	34,400	**	35,800	33,800	37,300	38,800	36,400	30,300	37,800	30,900	31,100
Energy and fuel	35,700	34,600	**	**	34,700	43,100	**	**	**	**	**	34,400
Health	30,400	31,100	**	**	29,800	33,000	**	**	**	**	**	29,000
Environment	33,900	**	**	**	**	**	**	**	**	**	**	38,000
Teaching	32,100	**	**	**	**	**	**	**	30,500	**	**	33,100
Education,non-teach	28,200	**	**	**	**	**	**	**	**	**	**	25,900
National defense	34,000	37,100	**	**	37,000	39,000	45,200	37,600	**	**	**	32,100
Crime prevention	30,700	**	**	**	**	**	**	**	**	**	**	**
Food	32,600	**	**	**	**	**	**	**	**	**	**	[illegible]
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	30,300	**	**	**	**	**	**	**	**	**	**	30,000
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	32,800	34,700	**	35,500	34,300	37,300	38,000	38,900	**	37,600	30,900	30,900
Not reported	30,500	**	**	**	**	**	**	**	**	**	**	33,200
Environmental scientists	38,800	36,200	35,700	34,900	40,500	52,800	50,900	54,400	34,800	41,000	36,900	31,500
Energy and fuel	49,000	40,800	38,600	39,300	45,400	62,000	57,300	65,000	**	54,100	50,700	40,700
Health	**	**	**	**	**	**	**	**	**	**	**	**
Environment	31,800	30,300	33,900	26,800	**	42,700	47,400	42,200	**	29,000	31,000	26,700
Teaching	34,600	**	**	**	**	**	**	**	34,300	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	34,600	33,900	**	34,200	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	32,900	33,400	**	31,000	30,900	40,600	**	44,500	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	35,900	30,900	35,000	**	**	52,600	**	**	**	**	**	28,500
Not reported	43,000	**	**	**	**	**	**	**	**	**	**	**
Earth scientists	40,800	36,700	35,100	34,800	42,400	54,600	51,200	58,300	35,000	46,200	38,500	31,800
Energy and fuel	49,200	41,000	38,800	40,000	45,400	62,500	57,700	65,600	**	54,900	50,600	40,700
Health	**	**	**	**	**	**	**	**	**	**	**	**
Environment	30,800	28,200	**	25,400	**	40,500	**	**	**	35,100	**	**
Teaching	34,100	**	**	**	**	**	**	**	34,300	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	34,600	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	32,900	33,400	**	31,000	30,900	40,600	**	44,500	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	31,200	29,400	**	**	**	**	**	**	**	**	**	**
Not reported	43,300	**	**	**	**	**	**	**	**	**	**	**
Oceanographers	35,200	33,400	**	**	**	**	**	**	**	**	**	**
Energy and fuel	**	**	**	**	**	**	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**	**	**	**
Environment	34,200	32,900	**	**	**	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	**	**	**	**	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-28. Median Annual Salary of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Primary Work Activity: 1982—continued

Field and Area of Critical National Interest	Total	Research and development				Management or administration			Teaching	Consulting	[illegible]uction and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Atmospheric scientists	$36,500	$36,800	$36,400	$34,900	**	$43,800	**	$36,500	**	**	$33,700	$31,800
Energy and fuel	**	**	**	**	**	**	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**	**	**	**
Environment	31,900	33,200	**	**	**	**	**	**	**	**	**	30,700
Teaching	**	**	**	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	37,200	**	**	**	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**	**	**	**
Engineers	36,100	34,100	34,800	36,500	33,800	43,000	46,800	41,800	36,700	36,600	32,100	32,300
Energy and fuel	38,900	36,000	34,300	38,200	35,700	47,400	49,300	46,700	40,600	40,900	35,100	34,100
Health	34,000	32,600	**	**	32,500	41,400	45,200	39,300	**	30,400	30,500	31,200
Environment	34,200	31,600	**	35,400	31,300	40,500	42,600	40,300	**	35,300	31,800	30,900
Teaching	37,500	37,300	**	**	33,200	42,800	**	39,500	36,800	**	**	**
Education,non-teach	37,300	29,400	**	**	27,000	40,700	**	40,700	**	**	**	**
National defense	37,100	35,800	37,300	36,400	35,700	44,500	47,600	40,700	**	40,000	31,900	34,200
Crime prevention	32,700	**	**	**	**	**	**	**	**	**	**	**
Food	35,100	32,000	**	**	32,000	42,900	43,300	42,800	**	**	35,000	29,100
Other mineral resources	37,100	32,800	**	**	33,700	43,600	**	49,600	**	40,900	33,700	34,100
Community development	31,700	28,700	**	**	28,700	36,500	38,500	36,400	**	30,700	29,100	27,000
Housing	31,800	27,900	**	**	28,000	36,600	30,800	37,000	**	31,500	30,300	30,200
Does not apply	35,200	33,100	34,900	36,400	32,900	42,000	46,000	40,400	31,200	36,500	31,000	31,400
Not reported	36,100	32,300	**	**	32,300	45,000	45,200	44,900	**	40,300	31,500	32,300
Aeronautical / Astronautical	39,900	37,100	**	39,800	36,700	46,200	47,800	43,000	**	**	33,800	36,200
Energy and fuel	43,400	**	**	**	**	45,400	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	39,000	36,900	**	37,100	36,800	46,100	47,400	42,900	**	**	33,500	36,200
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	39,900	37,600	**	41,800	36,900	46,100	48,400	42,900	**	**	30,800	33,300
Not reported	39,800	**	**	**	**	**	**	**	**	**	**	**
Chemical	40,600	38,800	**	39,500	38,600	51,400	50,200	52,000	**	45,900	34,600	35,600
Energy and fuel	43,400	40,000	**	41,700	39,400	53,500	51,900	54,500	**	**	37,000	35,100
Health	38,800	33,400	**	**	33,500	**	**	**	**	**	**	**
Environment	40,000	36,800	**	**	38,800	44,600	**	45,700	**	**	33,300	**
Teaching	**	**	**	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	35,800	34,600	**	**	34,600	47,500	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	42,300	32,600	**	**	32,700	53,000	**	**	**	**	**	**
Other mineral resources	40,100	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	40,200	36,700	**	41,000	36,500	51,000	48,800	51,700	**	**	32,600	35,900
Not reported	41,200	**	**	**	**	**	**	**	**	**	**	**
Civil	33,900	30,600	**	32,800	30,400	38,800	40,300	38,300	35,500	35,300	30,800	30,100
Energy and fuel	37,000	34,100	**	**	33,600	45,100	47,800	43,300	**	42,100	32,800	36,000
Health	34,300	**	**	**	**	**	**	**	**	**	**	**
Environment	33,300	27,900	**	**	28,000	40,600	**	40,700	**	33,300	30,900	30,600
Teaching	35,400	**	**	**	**	**	**	**	35,200	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	32,900	31,800	**	**	30,600	36,700	**	36,600	**	**	30,700	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	32,800	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	36,600	**	**	**	**	**	**	**	**	**	**	**
Community development	30,900	27,400	**	**	27,400	35,300	**	35,400	**	30,700	28,700	28,600
Housing	30,900	26,900	**	**	27,200	35,100	**	35,200	**	32,500	32,400	26,800
Does not apply	33,800	30,900	**	31,500	30,900	37,100	36,800	37,000	**	35,800	30,700	26,500
Not reported	33,900	**	**	**	**	40,500	**	40,900	**	**	**	**
Electrical / Electronic	36,800	34,700	36,400	36,400	34,800	45,800	48,000	42,800	37,300	37,800	32,200	33,200
Energy and fuel	36,900	34,900	**	36,600	34,900	43,700	42,500	43,700	**	37,800	34,500	35,200
Health	35,300	35,200	**	**	35,200	43,700	**	**	**	**	28,200	**
Environment	30,900	30,100	**	**	30,100	**	**	**	**	**	**	**
Teaching	36,100	**	**	**	**	**	**	**	36,300	**	**	**
Education,non-teach	31,000	**	**	**	**	**	**	**	**	**	**	**
National defense	38,300	36,000	42,900	38,400	35,900	46,900	49,600	42,600	**	40,300	31,200	34,000
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	31,600	31,600	**	**	33,100	**	**	**	**	**	**	**
Other mineral resources	32,800	**	**	**	**	**	**	**	**	**	**	**
Community development	34,200	36,400	**	**	36,200	38,500	**	38,000	**	**	29,700	**
Housing	36,200	**	**	**	**	**	**	**	**	**	**	**
Does not apply	36,000	33,800	**	37,100	33,600	45,500	47,500	42,000	**	38,500	31,900	32,300
Not reported	36,500	33,600	**	**	32,900	45,600	**	42,000	**	**	**	**

See Footnotes at end of Table

Table B-28. Median Annual Salary of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Primary Work Activity: 1982—continued

Field and Area of Critical National Interest	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other¹
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Industrial	**$32,200**	**$28,800**	**	**	**$28,600**	**$40,000**	**$40,300**	**$38,400**	**$36,200**	**$37,700**	**$30,100**	**$30,500**
Energy and fuel	36,900	31,300	**	**	31,500	49,900	**	52,300	**	**	31,100	**
Health	31,900	**	**	**	**	**	**	**	**	**	**	**
Environment	36,600	**	**	**	**	**	**	**	**	**	**	**
Teaching	35,300	**	**	**	**	**	**	**	36,200	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	34,900	30,000	**	**	30,000	40,000	**	40,000	**	**	30,800	30,400
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	31,000	**	**	**	**	40,200	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	40,000	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	30,700	28,100	**	**	28,200	37,500	40,000	36,800	**	35,900	28,900	30,400
Not reported	32,200	**	**	**	**	**	**	**	**	**	**	**
Materials	**37,800**	**34,400**	**	**32,800**	**34,900**	**46,900**	**46,400**	**41,300**	**	**	**31,800**	**38,100**
Energy and fuel	38,100	34,700	**	**	33,400	49,700	48,800	**	**	**	36,700	**
Health	**	**	**	**	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	36,200	34,900	**	**	35,700	46,000	**	**	**	**	31,100	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	35,900	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	37,100	34,200	**	32,800	34,800	46,200	48,100	40,200	**	**	30,300	**
Not reported	**	**	**	**	**	**	**	**	**	**	**	**
Mechanical	**36,600**	**33,600**	**	**36,300**	**33,500**	**44,800**	**45,900**	**44,100**	**36,400**	**38,600**	**33,300**	**32,300**
Energy and fuel	36,700	36,000	**	37,200	35,800	47,600	50,400	46,300	**	40,100	34,700	34,600
Health	35,500	31,900	**	**	33,100	41,600	**	43,800	**	**	**	**
Environment	36,100	32,500	**	**	32,300	43,900	**	45,700	**	**	33,000	**
Teaching	40,100	**	**	**	**	**	**	**	38,400	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	36,800	35,200	**	36,000	35,100	42,600	45,400	40,500	**	**	32,200	33,300
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	35,100	32,200	**	**	32,200	38,000	**	37,600	**	**	**	**
Other mineral resources	36,700	**	**	**	**	**	**	**	**	**	**	**
Community development	36,700	**	**	**	**	**	**	**	**	**	**	**
Housing	35,400	27,500	**	**	27,500	41,000	**	**	**	**	**	**
Does not apply	35,600	32,500	**	32,900	32,500	43,800	44,600	43,300	**	40,700	33,000	30,400
Not reported	38,100	32,300	**	**	32,300	50,800	**	**	**	**	**	**
Mining	**40,600**	**40,600**	**	**	**38,500**	**50,700**	**	**48,900**	**	**	**33,900**	**34,300**
Energy and fuel	41,300	40,300	**	**	40,200	50,200	**	45,100	**	**	36,100	**
Health	**	**	**	**	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	36,800	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	**	**	**	**	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**	**	**	**
Nuclear	**40,300**	**36,200**	**	**35,300**	**37,400**	**46,700**	**49,600**	**46,000**	**	**	**34,800**	**
Energy and fuel	40,400	36,200	**	**	36,800	47,200	**	45,200	**	**	35,300	**
Health	**	**	**	**	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	38,700	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	**	**	**	**	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**	**	**	**
Petroleum	**50,700**	**45,300**	**	**	**43,000**	**63,300**	**	**66,100**	**	**61,600**	**45,100**	**42,700**
Energy and fuel	51,000	46,200	**	**	45,300	64,000	**	66,200	**	61,600	44,400	42,800
Health	**	**	**	**	**	**	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**	**	**	**
Teaching	**	**	**	**	**	**	**	**	**	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	**	**	**	**	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-28. Median Annual Salary of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Primary Work Activity: 1982—continued

Field and Area of Critical National Interest	Total	Research and development: Total	Research and development: Basic research	Research and development: Applied research	Research and development: Development and design	Management or administration: Total	Management or administration: Of research & development	Management or administration: Of other than R & D	Teaching	Consulting	Production and inspection	Other[1]
Other	$35,000	$34,600	$33,900	$36,500	$33,700	$40,400	$43,400	$39,400	$36,500	$36,800	$31,400	$32,100
Energy and fuel	36,800	36,000	**	36,400	36,000	44,600	50,100	43,600	**	42,400	33,900	33,300
Health	31,600	32,400	**	**	32,100	33,600	**	31,800	**	**	30,400	31,000
Environment	32,700	31,700	**	29,400	31,900	35,800	37,600	35,600	**	36,800	29,200	30,600
Teaching	36,300	**	**	**	**	**	**	**	36,200	**	**	**
Education,non-teach	37,000	**	**	**	**	**	**	**	**	**	**	**
National defense	36,300	36,300	**	36,400	35,900	41,600	44,500	38,500	**	40,800	32,100	35,000
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	34,200	31,600	**	**	30,500	44,100	**	**	**	**	35,400	**
Other mineral resources	40,100	**	**	**	**	**	**	**	**	**	**	**
Community development	31,600	29,000	**	**	29,000	40,000	**	36,100	**	**	29,400	24,900
Housing	30,600	**	**	**	**	36,000	**	36,400	**	**	28,400	30,300
Does not apply	33,900	33,300	**	37,500	33,200	40,300	42,900	38,800	**	34,200	31,000	32,000
Not reported	36,000	32,400	**	**	32,200	46,000	**	**	**	**	31,600	32,600
Life scientists	30,800	30,800	32,100	30,300	27,700	32,800	40,800	30,800	33,800	28,100	25,000	28,900
Energy and fuel	36,200	33,400	**	**	**	50,400	**	50,600	**	**	**	**
Health	34,100	32,500	32,400	32,800	31,200	43,500	44,800	40,600	34,700	**	26,200	28,800
Environment	25,600	24,700	28,400	24,300	24,500	26,300	28,900	25,800	**	24,700	23,800	25,000
Teaching	34,000	40,000	40,400	**	**	40,400	**	**	33,400	**	**	**
Education,non-teach	38,600	**	**	**	**	39,700	**	39,800	**	**	**	**
National defense	36,500	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	31,800	31,100	30,700	32,200	30,700	38,500	51,500	31,100	32,900	**	26,800	27,000
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	30,000	25,300	20,800	26,000	27,300	32,400	36,700	30,800	**	**	25,000	23,400
Not reported	27,700	27,400	**	**	**	**	**	**	**	**	**	**
Biologists	29,800	29,100	31,200	27,500	25,900	30,900	37,000	30,000	32,800	24,800	24,800	34,900
Energy and fuel	32,100	30,800	**	**	**	46,200	**	**	**	**	**	**
Health	30,600	30,000	31,700	27,300	33,600	36,000	40,700	31,200	29,600	**	28,100	25,600
Environment	25,400	24,700	28,000	24,500	24,300	26,200	30,000	25,700	**	24,700	22,700	24,900
Teaching	33,400	40,300	40,300	**	**	**	**	**	32,600	**	**	**
Education,non-teach	34,300	**	**	**	**	34,700	**	**	**	**	**	**
National defense	40,100	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	30,700	33,000	32,000	40,100	**	35,700	**	30,600	**	**	25,700	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	[illegible]	24,700	20,700	25,200	**	32,600	37,000	30,700	**	**	26,500	20,500
Not reported	[illegible]	**	**	**	**	**	**	**	**	**	**	**
Biochemists	34,400	32,200	30,900	33,200	**	48,900	50,100	**	33,700	**	**	**
Energy and fuel	**	**	**	**	**	**	**	**	**	**	**	**
Health	34,900	32,300	30,500	35,400	**	46,800	**	**	**	**	**	**
Environment	**	**	**	**	**	**	**	**	**	**	**	**
Teaching	33,600	**	**	**	**	**	**	**	33,600	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	30,200	19,800	**	**	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**	**	**	**
Agricultural scientists	31,100	30,800	29,500	30,400	31,600	36,000	41,800	36,100	32,600	**	29,400	30,200
Energy and fuel	**	**	**	**	**	**	**	**	**	**	**	**
Health	**	**	**	**	**	**	**	**	**	**	**	**
Environment	26,300	24,200	**	22,800	**	25,100	**	25,700	**	**	**	**
Teaching	32,700	**	**	**	**	**	**	**	32,200	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	32,200	30,600	**	30,600	31,100	40,900	51,100	37,600	**	**	27,000	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	30,700	35,100	**	**	**	30,800	**	30,600	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**	**	**	**
Medical scientists	41,800	39,000	37,800	47,800	**	52,800	56,700	49,200	48,400	**	**	32,700
Energy and fuel	**	**	**	**	**	**	**	**	**	**	**	**
Health	44,800	40,400	38,100	48,800	**	60,400	57,400	65,000	52,000	**	**	37,000
Environment	**	**	**	**	**	**	**	**	**	**	**	**
Teaching	45,300	**	**	**	**	**	**	**	46,000	**	**	**
Education,non-teach	**	**	**	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	**	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	**	**	**	**	**	**	**	**	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-28. Median Annual Salary of Employed Scientists and Engineers by Field, Area of Critical National Interest, and Primary Work Activity: 1982—continued

Field and Area of Critical National Interest	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Psychologists	$30,800	$30,500	$32,100	$31,800	$28,000	$35,300	$37,100	$36,100	$30,000	$33,600	$30,300	$26,600
Energy and fuel	**	**	**	**	**	**	**	**	**	**	**	**
Health	30,100	29,600	**	**	**	33,300	**	33,300	30,700	30,800	**	29,500
Environment	**	**	**	**	**	**	**	**	**	**	**	**
Teaching	30,400	**	**	**	**	**	**	**	30,100	**	**	**
Education,non-teach	30,200	**	**	**	**	35,800	**	37,700	28,500	**	**	26,300
National defense	33,800	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	25,800	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	23,700	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	32,800	34,200	**	**	**	35,400	**	34,300	**	**	**	29,100
Not reported	31,800	**	**	**	**	**	**	**	**	**	**	**
Social scientists	34,300	33,900	33,100	33,800	37,800	37,100	40,800	36,300	32,300	42,800	38,700	30,300
Energy and fuel	34,700	31,400	**	33,300	**	34,900	**	34,100	**	44,100	**	33,400
Health	30,000	26,700	**	28,800	**	38,100	**	38,700	**	**	**	25,500
Environment	30,200	28,300	**	28,600	**	30,800	**	29,900	**	**	**	20,300
Teaching	32,900	38,300	31,800	**	**	**	**	**	32,300	**	**	**
Education,non-teach	40,600	**	**	**	**	42,100	**	42,400	40,300	**	**	**
National defense	38,700	44,800	**	**	**	34,000	**	30,600	**	**	**	**
Crime prevention	24,800	**	**	**	**	**	**	**	**	**	**	**
Food	37,600	36,600	**	35,900	**	37,900	**	37,500	**	**	**	30,700
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	29,100	**	**	**	**	32,000	**	29,700	**	**	**	20,500
Housing	51,100	**	**	**	**	**	**	**	**	**	**	**
Does not apply	35,600	38,100	41,500	37,000	35,900	35,800	41,100	35,600	23,600	40,300	30,800	36,400
Not reported	40,700	**	**	**	**	42,000	**	**	**	**	**	**
Economists	40,000	40,800	44,000	38,900	51,100	42,200	47,800	40,800	24,600	51,100	36,400	40,300
Energy and fuel	40,800	32,800	**	32,700	**	42,800	**	42,100	**	**	**	34,900
Health	41,700	**	**	**	**	**	**	**	**	**	**	**
Environment	38,000	**	**	**	**	**	**	**	**	**	**	**
Teaching	36,000	52,300	**	**	**	**	**	**	34,500	**	**	**
Education,non-teach	41,700	**	**	**	**	**	**	**	**	**	**	**
National defense	35,500	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	40,900	37,400	**	37,000	**	43,400	**	**	**	**	**	35,700
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	50,400	**	**	**	**	53,800	**	**	**	**	**	**
Housing	54,800	**	**	**	**	**	**	**	**	**	**	**
Does not apply	40,200	40,900	36,600	39,800	**	38,800	42,100	35,900	**	54,800	33,200	40,900
Not reported	51,500	**	**	**	**	**	**	**	**	**	**	**
Sociologists / anthropologists	29,400	29,600	32,000	26,000	**	30,300	36,800	29,800	30,100	**	**	28,000
Energy and fuel	**	**	**	**	**	**	**	**	**	**	**	**
Health	30,400	27,000	**	**	**	**	**	**	**	**	**	**
Environment	20,700	22,300	**	**	**	**	**	**	**	**	**	**
Teaching	29,800	**	**	**	**	**	**	**	29,800	**	**	**
Education,non-teach	40,800	**	**	**	**	**	**	**	**	**	**	**
National defense	**	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	24,300	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	29,100	**	**	**	**	**	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	30,200	33,300	**	**	**	30,900	**	30,600	**	**	**	**
Not reported	**	**	**	**	**	**	**	**	**	**	**	**
Other social scientists	31,000	[illegible]	**	33,800	**	35,400	36,800	36,100	30,000	**	26,100	[illegible]
Energy and fuel	**	**	**	**	**	**	**	**	**	**	**	**
Health	25,900	**	**	**	**	30,800	**	**	**	**	**	23,600
Environment	36,900	**	**	**	**	**	**	**	**	**	**	**
Teaching	32,600	**	**	**	**	**	**	**	30,900	**	**	**
Education,non-teach	40,200	**	**	**	**	40,800	**	42,100	**	**	**	**
National defense	41,400	**	**	**	**	**	**	**	**	**	**	**
Crime prevention	**	**	**	**	**	**	**	**	**	**	**	**
Food	**	**	**	**	**	**	**	**	**	**	**	**
Other mineral resources	**	**	**	**	**	**	**	**	**	**	**	**
Community development	24,300	**	**	**	**	27,600	**	**	**	**	**	**
Housing	**	**	**	**	**	**	**	**	**	**	**	**
Does not apply	32,600	38,500	**	40,200	**	35,500	50,300	35,200	**	**	**	23,700
Not reported	**	**	**	**	**	**	**	**	**	**	**	**

**Fewer than 20 sample cases reported.

[1] Includes Report Writing, Statistical Work, Computer Applications, Other, and Not Reported

Source: National Science Foundation.

Table B-29. Median Annual Salary of Employed Scientists and Engineers by Field, Type of Employer, and Primary Work Activity: 1982

Field and Type of Employer	Total	Research and development: Total	Research and development: Basic research	Research and development: Applied research	Research and development: Development and design	Management or administration: Total	Management or administration: Of research & development	Management or administration: Of other than R & D	Teaching	Consulting	Production and inspection	Other[1]
Total, all fields	$35,300	$34,600	$33,600	$35,300	$33,900	$41,600	$46,100	$40,250	$33,300	$36,400	$31,300	$31,000
Business / industry	36,000	34,400	37,000	36,100	34,100	43,500	47,100	41,000	31,000	37,000	32,200	32,200
4-yr coll./ univ.	34,800	32,400	32,800	32,500	27,900	41,100	45,800	40,200	34,800	26,400	24,800	28,700
2-yr college	30,800	••	••	••	••	41,400	••	41,700	29,400	••	••	••
Nonprofit organizatn	34,500	35,800	34,800	37,100	36,400	42,600	49,700	38,000	••	32,400	32,200	25,000
Federal government	36,500	34,900	34,300	36,100	34,000	40,300	43,600	37,400	34,300	34,600	32,000	33,000
State government	27,100	26,300	23,400	24,800	27,100	30,200	28,900	30,300	••	25,200	25,700	23,200
Other government	30,300	29,100	••	28,200	29,400	36,200	35,000	36,200	••	••	28,500	28,400
Other[2]	30,200	31,800	35,200	31,700	31,500	33,800	39,000	32,300	28,800	33,800	28,300	28,000
Physical scientists	36,400	34,800	33,800	34,400	33,400	46,800	50,200	40,100	34,800	36,100	27,500	32,800
Business / industry	37,900	35,200	38,700	36,500	33,400	47,100	51,900	40,100	••	40,700	29,300	35,000
4-yr coll./ univ.	36,400	24,900	24,200	34,400	••	42,800	••	••	35,300	••	••	••
2-yr college	30,300	••	••	••	••	••	••	••	26,700	••	••	••
Nonprofit organizatn	37,900	37,300	37,900	••	••	••	••	••	••	••	••	••
Federal government	37,800	38,300	31,800	38,400	35,000	45,000	46,100	40,100	••	••	30,100	••
State government	22,200	••	••	••	••	••	••	••	••	••	22,000	••
Other government	22,700	••	••	••	••	••	••	••	••	••	20,800	••
Other[2]	28,500	••	••	••	••	••	••	••	••	••	••	••
Chemists	36,100	33,100	28,800	34,800	32,700	44,300	48,200	38,800	34,700	••	27,200	31,900
Business / industry	36,800	33,700	38,100	35,300	32,700	45,400	50,600	37,800	••	••	28,000	32,900
4-yr coll./ univ.	34,300	15,500	14,900	••	••	••	••	••	36,200	••	••	••
2-yr college	••	••	••	••	••	••	••	••	••	••	••	••
Nonprofit organizatn	34,800	••	••	••	••	••	••	••	••	••	••	••
Federal government	36,700	35,200	••	36,800	••	45,400	••	••	••	••	29,300	••
State government	22,100	••	••	••	••	••	••	••	••	••	22,100	••
Other government	22,400	••	••	••	••	••	••	••	••	••	••	••
Other[2]	23,400	••	••	••	••	••	••	••	••	••	••	••
Physicists / astronomers	46,700	40,300	38,300	43,400	36,000	50,400	51,800	43,800	35,100	••	••	••
Business / industry	45,800	42,500	••	44,000	40,100	51,200	54,500	40,900	••	••	••	••
4-yr coll./ univ.	37,200	38,200	36,700	••	••	••	••	••	35,800	••	••	••
2-yr college	••	••	••	••	••	••	••	••	••	••	••	••
Nonprofit organizatn	44,700	••	••	••	••	••	••	••	••	••	••	••
Federal government	40,200	38,500	••	41,300	••	45,800	46,900	••	••	••	••	••
State government	••	••	••	••	••	••	••	••	••	••	••	••
Other government	••	••	••	••	••	••	••	••	••	••	••	••
Other[2]	••	••	••	••	••	••	••	••	••	••	••	••
Other physical scientists	37,200	37,500	37,400	38,800	34,800	48,300	48,400	48,300	••	••	35,100	32,100
Business / industry	30,200	38,000	••	38,400	33,700	49,000	••	••	••	••	••	••
4-yr coll./ univ.	33,700	••	••	••	••	••	••	••	••	••	••	••
2-yr college	••	••	••	••	••	••	••	••	••	••	••	••
Nonprofit organizatn	••	••	••	••	••	••	••	••	••	••	••	••
Federal government	38,900	40,300	••	40,400	••	••	••	••	••	••	••	••
State government	••	••	••	••	••	••	••	••	••	••	••	••
Other government	••	••	••	••	••	••	••	••	••	••	••	••
Other[2]	••	••	••	••	••	••	••	••	••	••	••	••
Mathematical scientists	36,900	37,900	38,800	36,800	36,900	44,400	46,700	41,800	34,100	32,200	30,300	32,100
Business / industry	40,400	37,400	••	35,700	38,400	44,500	46,200	43,000	••	••	••	32,300
4-yr coll./ univ.	36,600	40,300	40,100	••	••	••	••	••	35,300	••	••	••
2-yr college	30,800	••	••	••	••	••	••	••	30,300	••	••	••
Nonprofit organizatn	42,400	••	••	••	••	••	••	••	••	••	••	••
Federal government	36,500	34,800	••	36,300	34,800	46,900	50,000	••	••	••	••	33,900
State government	24,100	••	••	••	••	••	••	••	••	••	••	••
Other government	••	••	••	••	••	••	••	••	••	••	••	••
Other[2]	32,700	••	••	••	••	••	••	••	••	••	••	••
Mathematicians	37,000	38,000	38,800	36,300	36,800	44,800	47,300	42,100	33,800	••	30,800	32,400
Business / industry	40,900	37,200	••	35,400	38,500	44,800	46,700	43,100	••	••	••	32,800
4-yr coll./ univ.	37,000	40,400	40,200	••	••	••	••	••	35,500	••	••	••
2-yr college	30,800	••	••	••	••	••	••	••	30,300	••	••	••
Nonprofit organizatn	••	••	••	••	••	••	••	••	••	••	••	••
Federal government	36,900	34,800	••	34,800	34,800	46,100	••	••	••	••	••	33,300
State government	••	••	••	••	••	••	••	••	••	••	••	••
Other government	••	••	••	••	••	••	••	••	••	••	••	••
Other[2]	••	••	••	••	••	••	••	••	••	••	••	••
Statisticians	34,200	37,400	••	38,100	••	42,800	43,700	••	34,700	••	••	31,400
Business / industry	34,900	••	••	••	••	40,100	••	••	••	••	••	31,100
4-yr coll./ univ.	34,600	••	••	••	••	••	••	••	34,700	••	••	••
2-yr college	••	••	••	••	••	••	••	••	••	••	••	••
Nonprofit organizatn	••	••	••	••	••	••	••	••	••	••	••	••
Federal government	35,700	••	••	••	••	••	••	••	••	••	••	34,500
State government	24,100	••	••	••	••	••	••	••	••	••	••	••
Other government	••	••	••	••	••	••	••	••	••	••	••	••
Other[2]	••	••	••	••	••	••	••	••	••	••	••	••
Computer specialists	32,800	34,400	••	35,900	33,800	37,300	39,000	36,400	30,300	37,800	30,500	31,100
Business / industry	33,400	34,700	••	35,200	34,600	38,500	40,600	37,100	32,300	37,900	30,300	31,400
4-yr coll./ univ.	28,200	34,500	••	••	••	••	••	••	30,800	••	••	24,100
2-yr college	26,700	••	••	••	••	••	••	••	••	••	••	••
Nonprofit organizatn	30,600	••	••	••	••	••	••	••	••	••	••	29,900
Federal government	35,100	36,400	••	••	34,900	37,000	35,200	40,500	••	••	••	33,300
State government	26,800	••	••	••	••	28,800	••	••	••	••	••	26,900
Other government	28,900	••	••	••	••	••	••	••	••	••	••	28,400
Other[2]	30,400	••	••	••	••	••	••	••	••	••	••	26,500

See Footnotes at end of Table

Table B-29. **Median Annual Salary of Employed Scientists and Engineers by Field, Type of Employer, and Primary Work Activity: 1982**—continued

Field and Type of Employer	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Environmental scientists	**$38,800**	**$36,200**	**$36,700**	**$34,900**	**$40,500**	**$52,800**	**$50,900**	**$54,400**	**$34,800**	**$41,000**	**$38,900**	**$31,800**
Business / industry	46,900	40,800	38,100	40,100	42,800	61,100	58,300	63,100	**	46,700	47,800	36,400
4-yr coll./ univ.	32,900	29,900	42,000	28,200	**	**	**	**	32,600	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	34,900	34,100	35,300	33,500	33,800	43,500	45,000	35,800	**	**	31,700	30,000
State government	28,800	28,700	**	28,500	**	32,600	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Earth scientists	**40,800**	**36,700**	**35,100**	**34,800**	**42,400**	**54,600**	**51,200**	**58,300**	**35,000**	**46,200**	**38,500**	**31,800**
Business / industry	43,200	41,000	40,700	40,200	44,000	62,500	57,600	65,500	**	50,000	48,200	38,900
4-yr coll./ univ.	32,600	29,100	**	**	**	**	**	**	32,900	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	34,400	32,700	35,800	30,200	**	41,900	49,100	**	**	**	31,200	**
State government	28,200	26,700	**	26,700	**	32,300	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Oceanographers	**36,300**	**33,400**	**	**	**	**	**	**	**	**	**	**
Business / industry	**	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	33,900	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Atmospheric scientists	**36,500**	**35,800**	**36,400**	**34,900**	**	**43,800**	**	**36,600**	**	**	**33,700**	**31,800**
Business / industry	36,300	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	35,600	35,600	**	**	**	**	**	**	**	**	**	31,600
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Engineers	**36,100**	**34,100**	**34,800**	**36,900**	**33,800**	**43,000**	**46,800**	**41,600**	**36,700**	**36,800**	**32,100**	**32,200**
Business / industry	36,300	34,300	33,300	36,400	34,100	45,000	47,300	42,800	31,900	36,700	32,400	32,500
4-yr coll./ univ.	39,200	35,400	**	37,500	29,700	46,000	53,700	40,200	40,000	**	26,600	**
2-yr college	32,600	**	**	**	**	**	**	**	30,000	**	**	**
Nonprofit organizats	40,200	38,800	**	39,200	38,100	46,800	50,900	38,000	**	**	32,400	32,400
Federal government	36,100	34,900	34,700	36,600	34,000	40,800	43,400	39,300	**	35,800	32,700	33,200
State government	29,800	27,700	**	28,800	27,300	32,400	31,700	32,400	**	**	27,000	28,400
Other government	32,100	29,900	**	**	30,000	35,500	35,900	35,500	**	**	30,200	28,500
Other[2]	33,500	30,700	**	**	30,900	40,000	41,700	38,200	**	**	26,800	33,400
Aeronautical / Astronautical	**38,900**	**37,100**	**	**38,600**	**36,700**	**46,200**	**47,800**	**43,000**	**	**	**33,800**	**35,200**
Business / industry	38,800	36,600	**	37,900	36,600	47,000	49,300	43,000	**	**	32,400	33,800
4-yr coll./ univ.	47,200	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	41,100	40,300	**	40,500	39,200	42,800	42,800	42,800	**	**	36,200	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Chemical	**40,900**	**36,800**	**	**38,600**	**36,800**	**51,400**	**50,200**	**52,000**	**	**45,900**	**34,800**	**35,800**
Business / industry	40,700	37,000	**	40,500	36,800	51,500	49,600	52,200	**	44,500	34,700	35,400
4-yr coll./ univ.	36,900	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	36,400	36,000	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Civil	**33,900**	**30,500**	**	**32,800**	**30,400**	**38,500**	**40,300**	**38,300**	**36,800**	**36,200**	**30,800**	[illegible]
Business / industry	35,800	31,000	**	34,100	30,900	[illegible]	42,400	40,700	**	35,600	32,900	[illegible]
4-yr coll./ univ.	39,300	**	**	**	**	**	**	**	36,700	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	36,000	**	**	**	**	**	**	**	**	**	**	**
Federal government	33,000	32,100	**	**	31,600	38,100	**	38,200	**	**	32,300	32,000
State government	30,000	27,000	**	**	26,800	32,700	31,800	32,800	**	**	26,800	29,200
Other government	31,200	30,000	**	**	30,300	35,200	**	35,300	**	**	30,100	28,200
Other[2]	35,000	**	**	**	**	**	**	**	**	**	**	**
Electrical / Electronic	**36,800**	**34,700**	**36,400**	**36,400**	**34,500**	**45,800**	**46,000**	**42,800**	**37,300**	**37,500**	**32,200**	**33,300**
Business / industry	36,800	34,600	30,500	37,000	34,500	46,300	46,400	43,500	25,100	37,600	32,300	33,300
4-yr coll./ univ.	37,600	35,000	**	36,300	27,500	**	**	**	40,200	**	**	**
2-yr college	35,800	**	**	**	**	**	**	**	33,600	**	**	**
Nonprofit organizats	40,500	41,400	**	**	38,700	46,300	**	**	**	**	**	**
Federal government	36,200	34,300	**	35,500	34,600	42,400	44,300	40,400	**	**	33,100	33,400
State government	32,100	**	**	**	**	**	**	**	**	**	**	**
Other government	35,200	26,800	**	**	26,800	**	**	**	**	**	**	**
Other[2]	30,200	31,000	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-29. Median Annual Salary of Employed Scientists and Engineers by Field, Type of Employer, and Primary Work Activity: 1982—continued

Field and Type of Employer	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Industrial	$32,200	$30,600	**	**	$29,000	$40,600	$40,300	$39,400	$36,300	$37,700	$30,100	$30,800
Business / industry	32,000	29,800	**	**	28,800	40,200	40,700	40,100	**	40,300	30,100	30,300
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizatn	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	36,700	**	**	**	**	37,000	**	37,100	**	**	32,600	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	27,900	**	**	**	**	**	**	**	**	**	**	**
Materials	37,800	34,400	**	33,600	34,900	46,600	46,400	41,300	**	**	31,800	38,100
Business / industry	37,800	25,100	**	34,200	35,300	46,800	47,900	41,800	**	**	31,900	38,300
4-yr coll./ univ.	41,300	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizatn	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	36,900	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Mechanical	35,600	33,600	**	36,300	33,500	44,800	45,900	44,100	36,400	38,800	33,300	32,300
Business / industry	36,800	33,800	**	35,800	33,500	45,500	46,500	44,900	**	39,100	33,500	32,200
4-yr coll./ univ.	36,900	**	**	**	**	**	**	**	38,700	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizatn	42,200	40,700	**	**	**	**	**	**	**	**	**	**
Federal government	36,700	32,800	**	35,400	32,300	39,400	39,900	39,100	**	**	32,500	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	36,300	**	**	**	**	**	**	**	**	**	**	**
Other[2]	34,200	**	**	**	**	**	**	**	**	**	**	**
Mining	40,600	40,000	**	**	38,800	50,700	**	49,900	**	**	33,900	34,300
Business / industry	40,400	40,000	**	**	38,900	51,200	**	50,500	**	**	33,900	35,100
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizatn	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Nuclear	40,300	36,200	**	35,300	37,400	46,700	46,500	46,000	**	**	34,900	**
Business / industry	40,100	36,400	**	**	36,100	47,100	**	45,200	**	**	35,100	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizatn	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	41,000	**	**	**	**	46,200	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Petroleum	50,700	45,300	**	**	43,000	63,300	**	66,100	**	61,800	46,100	42,700
Business / industry	51,200	45,200	**	**	[illegible]	65,300	**	66,800	**	60,500	46,400	42,700
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizatn	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Other	36,000	34,600	30,600	36,500	33,700	40,400	43,400	38,400	35,500	35,800	31,400	32,100
Business / industry	35,100	34,100	**	35,400	34,000	40,800	43,700	40,300	30,700	35,600	32,000	32,400
4-yr coll./ univ.	38,400	34,000	**	**	**	**	**	**	38,100	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizatn	38,600	37,800	**	38,400	33,000	**	**	**	**	**	**	**
Federal government	35,700	36,000	**	37,000	34,200	40,200	42,500	38,800	**	**	31,800	31,800
State government	27,900	27,100	**	**	**	30,600	**	31,000	**	**	27,600	29,800
Other government	31,300	**	**	**	**	33,200	**	33,000	**	**	28,400	**
Other[2]	33,300	**	**	**	**	40,000	**	**	**	**	27,300	31,300
Life scientists	30,600	30,600	32,100	30,200	27,700	32,800	40,800	30,900	33,800	26,100	25,800	25,900
Business / industry	32,000	31,900	37,400	32,100	31,100	36,100	44,200	32,600	**	25,300	27,400	27,200
4-yr coll./ univ.	33,700	31,100	32,300	29,800	**	40,600	46,400	39,500	34,700	**	**	26,100
2-yr college	32,000	**	**	**	**	**	**	**	28,900	**	**	**
Nonprofit organizatn	34,700	30,500	29,000	33,000	**	42,700	**	**	**	**	**	**
Federal government	28,900	30,400	30,700	32,300	25,400	29,800	43,200	28,000	**	26,000	25,000	27,800
State government	22,700	22,000	23,400	21,800	**	24,800	27,400	23,400	**	**	19,500	21,900
Other government	24,200	**	**	**	**	**	**	**	**	**	26,100	**
Other[2]	31,800	34,200	33,800	34,300	**	32,100	**	30,300	**	**	**	30,600
Biologists	29,800	29,100	31,200	27,800	25,600	30,900	37,000	30,000	32,800	24,800	24,600	24,900
Business / industry	30,200	30,200	35,600	30,100	29,500	32,800	38,100	30,700	**	21,100	25,600	25,100
4-yr coll./ univ.	33,400	32,100	32,600	26,200	**	39,500	**	37,300	34,300	**	**	**
2-yr college	32,100	**	**	**	**	**	**	**	29,700	**	**	**
Nonprofit organizatn	33,100	25,700	27,000	**	**	**	**	**	**	**	**	**
Federal government	27,300	27,600	27,100	31,700	24,800	26,600	41,300	27,300	**	**	24,500	26,000
State government	22,400	21,800	**	21,800	**	24,600	26,000	23,500	**	**	19,100	21,400
Other government	24,100	**	**	**	**	**	**	**	**	**	**	**
Other[2]	30,400	33,500	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-29. Median Annual Salary of Employed Scientists and Engineers by Field, Type of Employer, and Primary Work Activity: 1982—continued

Field and Type of Employer	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Biochemists	$34,400	$32,300	$30,900	$33,300	**	$48,900	$50,100	**	$33,700	**	**	**
Business / industry	40,300	37,000	**	40,100	**	48,700	**	**	**	**	**	**
4-yr coll./ univ.	30,600	29,400	30,300	**	**	**	**	**	33,700	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	33,400	33,400	**	**	**	**	**	**	**	**	**	**
Federal government	40,400	36,900	41,700	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	37,400	**	**	**	**	**	**	**	**	**	**	**
Agricultural scientists	31,100	30,800	29,500	30,400	31,800	36,800	41,800	35,100	32,600	**	29,400	30,300
Business / industry	33,900	32,400	**	32,200	32,600	40,600	52,600	36,900	**	**	30,200	**
4-yr coll./ univ.	31,700	28,800	**	30,300	**	**	**	**	33,200	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	30,700	32,800	**	32,300	**	31,200	**	31,900	**	**	**	**
State government	23,000	21,500	**	**	**	24,200	**	22,900	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Medical scientists	41,800	38,800	37,800	47,800	**	52,800	56,700	48,200	46,400	**	**	32,700
Business / industry	49,000	42,100	**	**	**	56,500	**	**	**	**	**	**
4-yr coll./ univ.	41,700	40,300	37,800	51,500	**	**	**	**	45,500	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	42,400	32,900	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	31,500	**	**	**	**	**	**	**	**	**	**	31,300
Psychologists	30,800	30,800	32,100	31,800	28,000	36,300	37,100	35,100	30,000	33,800	30,200	35,800
Business / industry	36,300	**	**	**	**	35,900	43,500	35,400	**	47,700	**	40,300
4-yr coll./ univ.	32,100	29,900	30,800	**	**	34,700	**	36,800	32,000	**	**	30,400
2-yr college	30,700	**	**	**	**	**	**	**	29,500	**	**	**
Nonprofit organizats	20,500	**	**	**	**	**	**	**	**	**	**	20,400
Federal government	38,600	**	**	**	**	**	**	**	**	**	**	**
State government	28,100	**	**	**	**	30,300	**	**	**	**	**	28,800
Other government	27,000	**	**	**	**	**	**	**	**	**	**	26,500
Other[2]	28,200	**	**	**	**	32,300	**	31,200	28,800	30,800	**	27,500
Social scientists	34,300	33,800	33,100	33,800	37,000	37,100	40,800	38,300	32,300	42,800	30,700	30,300
Business / industry	36,500	40,600	**	36,800	51,100	35,900	39,000	35,800	**	49,300	32,700	36,700
4-yr coll./ univ.	34,000	33,400	33,700	32,900	**	40,300	36,700	40,900	33,500	**	**	26,900
2-yr college	32,100	**	**	**	**	**	**	**	29,200	**	**	**
Nonprofit organizats	28,300	30,300	**	30,500	**	42,200	50,800	38,400	**	**	**	20,400
Federal government	40,000	37,700	**	37,300	41,400	42,700	43,800	42,300	**	**	**	36,100
State government	25,500	30,200	**	27,500	**	27,200	**	27,100	**	**	**	20,900
Other government	24,400	**	**	**	**	**	**	**	**	**	**	16,300
Other[2]	28,500	36,500	**	32,900	**	30,200	**	30,000	**	**	**	24,200
Economists	40,000	40,800	44,000	38,800	51,100	42,200	47,800	40,800	34,800	51,100	38,400	40,300
Business / industry	40,900	46,400	**	44,500	**	40,500	46,000	40,200	**	51,600	38,100	45,100
4-yr coll./ univ.	36,800	42,400	44,800	37,000	**	42,700	**	**	35,700	**	**	**
2-yr college	29,600	**	**	**	**	**	**	**	29,800	**	**	**
Nonprofit organizats	46,600	41,000	**	42,200	**	**	**	**	**	**	**	**
Federal government	40,800	40,400	**	39,900	43,900	45,500	45,800	46,300	**	**	**	36,300
State government	28,800	**	**	**	**	**	**	**	**	**	**	24,000
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	60,900	54,800	**	**	**	66,200	**	65,000	**	**	**	56,000
Sociologists / anthropologists	29,400	29,800	32,000	28,000	**	30,300	35,800	29,800	30,100	**	**	30,000
Business / industry	30,100	**	**	**	**	30,200	**	30,000	**	**	**	**
4-yr coll./ univ.	30,400	30,000	33,000	22,600	**	**	**	**	30,900	**	**	**
2-yr college	41,200	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	23,700	**	**	**	**	**	**	**	**	**	**	**
Federal government	29,600	**	**	**	**	**	**	**	**	**	**	**
State government	22,300	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Other social scientists	31,800	32,900	**	33,800	**	36,400	36,800	36,100	36,800	**	25,100	33,800
Business / industry	34,000	**	**	**	**	35,000	32,800	35,300	**	**	**	27,900
4-yr coll./ univ.	34,100	33,500	**	**	**	37,800	**	37,700	33,300	**	**	**
2-yr college	35,200	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	25,800	**	**	**	**	36,300	**	**	**	**	**	**
Federal government	40,000	**	**	**	**	41,500	**	**	**	**	**	36,300
State government	27,300	**	**	**	**	**	**	**	**	**	**	**
Other government	24,700	**	**	**	**	**	**	**	**	**	**	**
Other[2]	21,900	**	**	**	**	**	**	**	**	**	**	**

**Fewer than 20 sample cases reported.

[1] Includes Report Writing, Statistical Work, Computer Applications, Other, and Not Reported

[2] Includes Elementary and Secondary Schools, Hospitals/Clinics, Military/Commissioned Corps, other Types of Employer, and Not Reported.

Source: National Science Foundation.

Table B-30. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Type of Employer: 1982

Field, Sex, and Race	Total	Business/industry	4-year colleges/universities	2-year colleges	Nonprofit organizations	Federal government	State government	Other government	Other[1]
Total, all fields									
Sex	$36,300	$36,000	$34,600	$30,800	$34,500	$35,500	$27,100	$30,300	$30,200
Male	36,900	36,500	36,000	32,400	36,700	35,900	27,500	30,600	31,000
Female	28,200	29,500	27,500	28,300	25,000	30,300	22,700	19,600	25,100
Race	36,300	36,000	34,600	30,800	34,500	35,500	27,100	30,300	30,200
White	35,500	36,200	34,800	30,700	34,600	35,700	27,200	30,300	30,100
Black	30,800	30,900	26,800	34,800	28,700	34,200	25,200	25,700	29,600
Asian	34,500	36,500	33,900	**	35,500	34,200	27,600	30,800	31,600
Other[2]	33,000	33,400	35,400	**	**	32,900	25,200	26,700	42,900
Physical scientists									
Sex	36,400	37,900	36,400	30,300	37,900	37,800	22,200	22,700	28,500
Male	37,500	38,400	36,700	31,000	40,100	39,000	22,400	22,600	**
Female	26,900	28,500	22,900	**	**	30,300	20,800	**	**
Race	36,400	37,900	35,400	30,300	37,900	37,800	22,200	22,700	28,500
White	36,900	38,800	36,400	28,900	40,100	38,100	22,100	22,400	**
Black	31,200	30,000	**	**	**	33,700	**	**	**
Asian	32,000	32,200	32,100	**	**	36,500	**	**	**
Other[2]	39,000	39,000	**	**	**	**	**	**	**
Chemists									
Sex	36,100	35,800	34,300	**	34,600	35,700	22,100	22,400	23,400
Male	38,000	37,200	36,000	**	**	36,200	22,100	22,300	**
Female	25,500	27,700	21,100	**	**	29,900	21,000	**	**
Race	36,100	35,800	34,300	**	34,600	35,700	22,100	22,400	23,400
White	36,500	36,500	34,800	**	34,700	35,800	20,400	**	**
Black	30,600	29,800	**	**	**	33,000	**	**	**
Asian	29,500	30,400	**	**	**	**	**	**	**
Other[2]	34,000	**	**	**	**	**	**	**	**
Physicists / astronomers									
Sex	40,700	45,600	37,200	**	42,700	40,200	**	**	**
Male	40,900	46,100	37,100	**	42,800	40,300	**	**	**
Female	37,000	**	**	**	**	**	**	**	**
Race	40,700	45,600	37,200	**	42,700	40,200	**	**	**
White	40,700	46,000	36,500	**	42,900	40,200	**	**	**
Black	**	**	**	**	**	**	**	**	**
Asian	45,600	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Other physical scientists									
Sex	37,200	39,200	33,700	**	**	39,900	[illegible]	**	**
Male	37,500	39,500	33,700	**	**	40,100	**	**	**
Female	32,300	**	**	**	**	**	**	**	**
Race	37,200	39,200	33,700	**	**	39,900	**	**	**
White	37,000	39,200	33,500	**	**	40,000	**	**	**
Black	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Mathematical scientists									
Sex	36,900	40,400	36,600	30,800	42,400	36,500	24,100	**	32,700
Male	37,800	40,900	37,100	32,700	**	37,800	26,200	**	**
Female	30,600	34,400	29,200	28,300	**	32,400	**	**	**
Race	36,900	40,400	36,600	30,800	42,400	36,500	24,100	**	32,700
White	37,200	40,600	36,600	30,500	45,000	36,800	23,700	**	33,000
Black	32,300	**	**	**	**	33,300	**	**	**
Asian	33,400	37,500	46,100	**	**	**	**	**	**
Other[2]	28,600	**	**	**	**	**	**	**	**
Mathematicians									
Sex	37,600	40,900	37,000	30,800	**	36,900	**	**	**
Male	38,400	41,200	37,700	32,600	**	37,900	**	**	**
Female	32,100	40,300	28,800	28,300	**	32,900	**	**	**
Race	37,600	40,900	37,000	30,800	**	36,900	**	**	**
White	37,900	40,900	37,100	30,500	**	37,200	**	**	**
Black	32,400	**	**	**	**	**	**	**	**
Asian	44,000	**	46,200	**	**	**	**	**	**
Other[2]	30,100	**	**	**	**	**	**	**	**
Statisticians									
Sex	34,200	34,900	34,600	**	**	35,700	24,100	**	**
Male	35,800	37,800	34,500	**	**	37,000	**	**	**
Female	28,700	28,300	**	**	**	32,000	**	**	**
Race	34,200	34,900	34,600	**	**	35,700	24,100	**	**
White	35,000	35,600	34,600	**	**	36,000	**	**	**
Black	**	**	**	**	**	**	**	**	**
Asian	30,300	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Computer specialists									
Sex	32,800	33,400	28,200	26,700	30,600	35,100	26,800	28,900	30,400
Male	34,100	34,900	30,100	**	32,700	35,600	27,300	29,600	30,500
Female	28,900	29,100	25,200	**	26,700	32,400	25,600	**	**
Race	32,800	33,400	28,200	26,700	30,600	35,100	26,800	28,900	30,400
White	32,900	33,600	28,600	26,200	30,900	35,000	27,100	29,300	30,300
Black	30,900	30,800	**	**	**	35,400	**	**	**
Asian	32,800	33,700	26,500	**	**	**	**	**	**
Other[2]	30,400	30,300	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-30. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Type of Employer: 1982—continued

Field, Sex, and Race	Total	Business/ industry	4-year colleges/ universities	2-year colleges	Nonprofit organizations	Federal government	State government	Other government	Other[1]
Environmental scientists									
Sex	$39,800	$46,900	$32,900	**	**	$34,900	$26,600	**	**
Male	40,300	48,300	33,300	**	**	35,100	26,700	**	**
Female	30,800	31,200	**	**	**	31,000	**	**	**
Race	39,800	46,900	32,900	**	**	34,900	26,600	**	**
White	40,000	47,300	34,100	**	**	35,000	26,700	**	**
Black	**	**	**	**	**	**	**	**	**
Asian	31,400	40,700	**	**	**	**	**	**	**
Other[2]	37,500	**	**	**	**	**	**	**	**
Earth scientists									
Sex	40,600	48,200	32,600	**	**	34,400	26,200	**	**
Male	41,400	50,000	32,900	**	**	34,800	26,300	**	**
Female	30,800	32,800	**	**	**	25,200	**	**	**
Race	40,600	48,200	32,600	**	**	34,400	26,200	**	**
White	40,800	48,500	33,100	**	**	34,800	26,300	**	**
Black	**	**	**	**	**	**	**	**	**
Asian	32,900	42,100	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Oceanographers									
Sex	35,200	**	**	**	**	33,900	**	**	**
Male	37,200	**	**	**	**	34,100	**	**	**
Female	**	**	**	**	**	**	**	**	**
Race	35,200	**	**	**	**	33,900	**	**	**
White	35,400	**	**	**	**	33,900	**	**	**
Black	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Atmospheric scientists									
Sex	35,500	36,300	**	**	**	35,600	**	**	**
Male	35,800	36,400	**	**	**	36,200	**	**	**
Female	**	**	**	**	**	**	**	**	**
Race	35,500	36,300	**	**	**	35,600	**	**	**
White	35,700	36,300	**	**	**	35,700	**	**	**
Black	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Engineers									
Sex	36,100	36,300	39,200	32,600	40,200	36,100	29,800	32,100	33,500
Male	36,200	36,500	39,200	32,100	40,400	36,300	30,000	32,200	33,800
Female	29,900	30,100	**	**	**	28,700	24,100	25,000	26,600
Race	36,100	36,300	39,200	32,600	40,200	36,100	29,800	32,100	33,500
White	36,200	36,400	39,200	33,800	40,100	36,300	30,100	32,000	33,100
Black	31,700	31,100	**	**	**	35,500	25,500	32,100	**
Asian	35,400	36,000	40,400	**	40,700	34,200	28,100	32,900	30,700
Other[2]	34,200	35,100	**	**	**	32,300	24,800	32,500	**
Aeronautical / Astronautical									
Sex	39,900	38,800	47,200	**	**	41,100	**	**	**
Male	40,000	38,900	47,400	**	**	41,200	**	**	**
Female	30,100	28,700	**	**	**	**	**	**	**
Race	39,900	38,800	47,200	**	**	41,100	**	**	**
White	40,100	39,100	**	**	**	41,300	**	**	**
Black	35,200	32,200	**	**	**	**	**	**	**
Asian	38,200	36,300	**	**	**	**	**	**	**
Other[2]	39,800	**	**	**	**	**	**	**	**
Chemical									
Sex	40,600	40,700	36,900	**	**	36,400	**	**	**
Male	40,800	40,900	**	**	**	36,600	**	**	**
Female	30,700	30,700	**	**	**	**	**	**	**
Race	40,600	40,700	36,900	**	**	36,400	**	**	**
White	40,900	40,900	**	**	**	36,700	**	**	**
Black	30,700	30,700	**	**	**	**	**	**	**
Asian	35,400	35,700	**	**	**	**	**	**	**
Other[2]	36,100	39,700	**	**	**	**	**	**	**
Civil									
Sex	33,900	35,800	39,300	**	36,000	33,900	30,000	31,200	35,000
Male	34,100	35,900	39,400	**	36,000	34,200	30,100	31,400	35,300
Female	27,000	28,700	**	**	**	27,400	24,100	25,400	**
Race	33,900	35,800	39,300	**	36,000	33,900	30,000	31,200	35,000
White	34,100	35,900	40,000	**	**	34,100	30,200	31,800	35,300
Black	30,800	30,200	**	**	**	35,900	**	28,500	**
Asian	33,300	36,100	**	**	**	32,600	28,100	30,300	**
Other[2]	30,400	33,400	**	**	**	**	**	**	**
Electrical / Electronic									
Sex	36,600	36,800	37,600	33,800	40,500	36,200	32,100	35,200	30,200
Male	36,700	36,800	37,400	33,900	40,700	36,200	32,100	35,300	30,200
Female	30,300	30,100	**	**	**	30,600	**	**	**
Race	36,600	36,800	37,600	33,800	40,500	36,200	32,100	35,200	30,200
White	36,700	36,900	37,100	34,300	40,300	36,200	32,300	32,800	30,200
Black	32,500	32,300	**	**	**	35,600	**	**	**
Asian	36,700	36,600	**	**	**	35,600	**	**	**
Other[2]	35,200	35,100	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-30. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Type of Employer: 1982—continued

Field, Sex, and Race	Total	Business/ industry	4-year colleges/ universities	2-year colleges	Nonprofit organizations	Federal government	State government	Other government	Other[1]
Industrial									
Sex	$32,200	$32,000	**	**	**	$35,700	**	**	$27,500
Male	32,500	32,200	**	**	**	35,700	**	**	**
Female	25,700	25,700	**	**	**	**	**	**	**
Race	32,200	32,000	**	**	**	35,700	**	**	27,500
White	32,400	32,200	**	**	**	35,900	**	**	28,000
Black	28,500	28,400	**	**	**	**	**	**	**
Asian	30,100	29,000	**	**	**	**	**	**	**
Other[2]	29,300	29,100	**	**	**	**	**	**	**
Materials									
Sex	37,500	37,800	41,300	**	**	35,500	**	**	**
Male	37,900	38,200	41,300	**	**	35,400	**	**	**
Female	28,700	28,300	**	**	**	**	**	**	**
Race	37,500	37,800	41,300	**	**	35,500	**	**	**
White	38,000	38,200	**	**	**	35,200	**	**	**
Black	**	**	**	**	**	**	**	**	**
Asian	34,000	34,700	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Mechanical									
Sex	36,800	36,800	38,900	**	42,200	35,700	**	35,300	34,200
Male	36,800	36,700	38,900	**	42,300	35,700	**	35,500	34,900
Female	30,000	29,000	**	**	**	**	**	**	**
Race	36,800	36,800	38,900	**	42,200	35,700	**	35,300	34,200
White	36,700	36,700	38,900	**	42,300	35,700	**	30,900	36,100
Black	33,700	33,500	**	**	**	37,000	**	**	**
Asian	36,000	36,100	**	**	**	32,700	**	**	**
Other[2]	33,900	33,800	**	**	**	**	**	**	**
Mining									
Sex	40,600	40,400	**	**	**	**	**	**	**
Male	40,700	40,500	**	**	**	**	**	**	**
Female	**	**	**	**	**	**	**	**	**
Race	40,600	40,400	**	**	**	**	**	**	**
White	40,800	40,800	**	**	**	**	**	**	**
Black	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Nuclear									
Sex	40,300	40,100	**	**	**	41,000	**	**	**
Male	40,400	40,200	**	**	**	41,300	**	**	**
Female	**	**	**	**	**	**	**	**	**
Race	40,300	40,100	**	**	**	41,000	**	**	**
White	40,500	40,200	**	**	**	41,400	**	**	**
Black	**	**	**	**	**	**	**	**	**
Asian	35,500	34,600	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Petroleum									
Sex	50,700	51,200	**	**	**	**	**	**	**
Male	51,200	51,800	**	**	**	**	**	**	**
Female	40,100	40,400	**	**	**	**	**	**	**
Race	50,700	51,200	**	**	**	**	**	**	**
White	50,900	52,000	**	**	**	**	**	**	**
Black	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Other									
Sex	35,000	35,100	38,400	**	38,800	35,700	27,900	31,300	33,300
Male	35,100	35,200	38,700	**	38,500	36,000	28,100	31,500	33,500
Female	30,700	31,100	**	**	**	26,700	**	**	**
Race	35,000	35,100	38,400	**	38,800	35,700	27,900	31,300	33,300
White	35,100	35,100	38,200	**	38,500	36,000	28,200	31,300	33,000
Black	31,000	30,700	**	**	**	34,100	**	**	**
Asian	34,100	34,800	**	**	**	32,400	**	**	**
Other[2]	35,000	35,400	**	**	**	**	**	**	**
Life scientists									
Sex	30,800	32,000	33,700	32,000	34,700	28,900	22,700	24,200	31,600
Male	32,000	32,900	34,900	32,300	36,100	29,600	23,100	24,900	34,400
Female	24,900	27,000	23,900	30,200	28,100	23,700	19,600	**	25,700
Race	30,800	32,000	33,700	32,000	34,700	28,900	22,700	24,200	31,600
White	30,900	32,100	33,800	31,300	34,900	29,000	22,700	24,400	31,600
Black	25,700	29,900	23,300	**	**	28,400	**	**	**
Asian	28,700	33,400	32,800	**	**	28,300	25,100	**	25,100
Other[2]	29,900	**	37,300	**	**	23,200	**	**	**
Biologists									
Sex	29,500	30,200	33,400	32,100	33,100	27,300	22,400	24,100	30,400
Male	30,300	30,500	34,600	32,300	33,200	28,000	22,800	25,600	31,000
Female	23,900	25,400	21,000	30,600	31,100	22,700	19,700	**	26,500
Race	29,500	30,200	33,400	32,100	33,100	27,300	22,400	24,100	30,400
White	29,700	30,200	33,700	32,100	33,100	27,400	22,500	24,400	30,600
Black	23,800	**	**	**	**	27,500	**	**	**
Asian	28,000	38,300	28,700	**	**	**	**	**	**
Other[2]	22,000	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-30. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Type of Employer: 1982—continued

Field, Sex, and Race	Total	Business/ industry	4-year colleges/ universities	2-year colleges	Nonprofit organizations	Federal government	State government	Other government	Other[1]
Biochemists									
Sex	$34,400	$40,300	$30,800	**	$33,400	$40,400	**	**	$37,400
Male	38,000	40,800	31,000	**	**	40,800	**	**	38,400
Female	27,300	34,900	20,800	**	**	**	**	**	**
Race	34,400	40,300	30,800	**	33,400	40,400	**	**	37,400
White	34,800	40,500	30,800	**	**	40,800	**	**	**
Black	**	**	**	**	**	**	**	**	**
Asian	31,100	**	33,700	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Agricultural scientists									
Sex	31,100	33,900	31,700	**	**	30,700	23,000	**	**
Male	32,200	34,800	32,400	**	**	31,100	23,200	**	**
Female	21,700	27,500	**	**	**	**	**	**	**
Race	31,100	33,900	31,700	**	**	30,700	23,000	**	**
White	31,200	34,100	31,600	**	**	31,400	23,100	**	**
Black	27,200	**	**	**	**	**	**	**	**
Asian	24,500	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Medical scientists									
Sex	41,800	49,000	41,700	**	**	42,400	**	**	31,500
Male	48,800	54,400	49,000	**	**	44,400	**	**	40,300
Female	30,300	27,400	32,400	**	**	**	**	**	24,100
Race	41,800	49,000	41,700	**	**	42,400	**	**	31,500
White	42,200	51,700	41,900	**	**	43,500	**	**	31,200
Black	**	**	**	**	**	**	**	**	**
Asian	30,700	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Psychologists									
Sex	30,500	36,300	32,100	30,700	20,500	38,600	26,100	27,000	28,200
Male	32,200	36,800	33,400	34,000	21,100	41,100	26,800	**	29,600
Female	26,700	30,900	26,700	**	19,800	**	20,500	**	26,000
Race	30,500	36,300	32,100	30,700	20,500	38,600	26,100	27,000	28,200
White	30,600	37,200	32,300	30,600	20,600	38,600	25,900	26,300	28,000
Black	26,500	**	24,200	**	**	**	**	**	30,900
Asian	30,300	**	**	**	**	**	**	**	26,500
Other[2]	30,200	**	**	**	**	**	**	**	**
Social scientists									
Sex	34,300	36,500	34,000	32,100	28,300	40,000	25,500	24,400	28,500
Male	38,500	40,000	36,400	35,900	36,800	40,800	25,400	26,200	30,700
Female	26,800	25,700	29,200	**	23,900	31,900	26,000	14,800	22,400
Race	34,300	36,500	34,000	32,100	28,300	40,000	25,500	24,400	28,500
White	34,800	36,700	34,700	31,500	28,300	40,100	25,500	25,100	26,600
Black	29,100	30,800	29,900	**	**	**	**	**	**
Asian	33,800	36,300	33,100	**	**	**	**	**	45,700
Other[2]	35,100	**	**	**	**	**	**	**	**
Economists									
Sex	40,000	40,900	36,800	29,600	46,600	40,800	28,800	**	60,900
Male	40,500	42,400	36,800	31,900	50,100	41,200	31,200	**	61,500
Female	32,400	32,200	34,600	**	**	35,500	**	**	**
Race	40,000	40,900	36,800	29,600	46,600	40,800	28,800	**	60,900
White	40,100	40,900	37,500	29,600	47,200	41,000	29,500	**	63,700
Black	30,300	**	**	**	**	**	**	**	**
Asian	40,500	51,100	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Sociologists / anthropologists									
Sex	29,400	30,100	30,400	41,200	23,700	29,600	22,300	**	**
Male	30,800	30,500	33,400	**	**	33,400	22,800	**	**
Female	28,300	22,700	28,900	**	**	**	**	**	**
Race	29,400	30,100	30,400	41,200	23,700	29,600	22,300	**	**
White	29,000	30,100	29,900	33,500	23,700	29,300	21,800	**	**
Black	29,400	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**
Other social scientists									
Sex	31,000	34,000	34,100	35,200	25,800	40,000	27,300	24,700	21,900
Male	34,300	35,400	36,800	36,200	28,900	40,900	27,200	26,200	23,300
Female	24,800	25,000	28,600	**	**	**	**	**	21,600
Race	31,000	34,000	34,100	35,200	25,800	40,000	27,300	24,700	21,900
White	31,700	35,500	34,300	35,300	25,800	38,400	27,100	25,800	20,900
Black	25,700	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**

**Fewer than 20 sample cases reported.

[1] Includes Elementary and Secondary Schools, Hospitals/Clinics, Military/Commissioned Corps, other Type of Employer, and Not Reported.

[2] Not Reported are included in Other.

Source: National Science Foundation.

Table B-31. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Primary Work Activity: 1982

Field, Sex, and Race	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Total, all fields												
Sex	$35,300	$34,000	$33,600	$35,200	$33,800	$41,800	$46,100	$40,200	$33,300	$36,400	$31,300	$31,000
Male	35,800	34,600	35,500	35,900	34,100	42,200	46,600	40,400	34,500	36,600	31,800	32,100
Female	28,200	29,100	25,800	27,700	29,000	31,800	35,600	29,800	28,200	30,600	26,200	27,400
Race	35,300	34,000	33,600	35,200	33,800	41,800	46,100	40,200	33,300	36,400	31,300	31,000
White	35,500	34,100	33,700	35,300	33,900	42,100	46,400	40,300	33,400	36,500	31,600	31,100
Black	30,800	30,700	28,600	30,800	30,800	35,200	40,500	32,900	28,800	29,600	30,500	30,400
Asian	34,500	34,200	33,400	35,700	33,900	40,200	46,000	35,900	34,700	36,700	29,700	32,500
Other[2]	33,000	32,600	40,100	32,900	32,100	37,000	36,800	37,100	35,000	34,900	30,200	30,300
Physical scientists												
Sex	36,400	34,900	33,900	36,400	33,400	45,900	50,300	40,100	34,800	36,100	27,500	32,800
Male	37,500	35,500	35,500	37,500	33,900	46,500	50,500	40,300	34,900	40,600	28,800	34,700
Female	26,900	28,500	23,700	29,300	27,700	30,900	35,000	30,400	26,500	**	23,000	29,600
Race	36,400	34,900	33,900	36,400	33,400	45,900	50,300	40,100	34,800	36,100	27,500	32,800
White	36,900	35,200	33,300	37,000	34,000	46,200	50,500	40,100	34,900	36,100	28,300	33,500
Black	31,200	30,700	**	33,300	30,200	42,500	**	**	**	**	28,500	**
Asian	32,000	32,300	34,000	32,800	29,800	47,400	49,300	**	**	**	23,200	**
Other[2]	39,000	33,600	**	**	**	**	**	**	**	**	**	**
Chemists												
Sex	35,100	33,100	28,800	34,500	32,700	44,200	49,200	38,900	34,700	**	27,200	31,900
Male	36,000	33,800	30,100	35,500	33,200	44,900	49,700	40,100	35,500	**	28,800	32,900
Female	25,500	28,200	23,300	29,000	27,900	30,900	**	30,400	22,800	**	23,100	29,500
Race	35,100	33,100	28,800	34,500	32,700	44,200	49,200	38,900	34,700	**	27,200	31,900
White	35,500	33,800	28,200	35,200	33,200	43,900	49,200	37,900	35,100	**	28,200	32,600
Black	30,600	29,800	**	29,800	29,600	42,500	**	**	**	**	28,500	**
Asian	29,500	30,100	30,300	30,800	26,900	46,900	**	**	**	**	23,100	**
Other[2]	34,000	**	**	**	**	**	**	**	**	**	**	**
Physicists / astronomers												
Sex	40,700	40,300	38,200	43,400	36,600	50,400	51,900	43,800	35,100	**	**	**
Male	40,800	40,400	38,400	44,100	36,600	50,700	52,000	44,900	34,700	**	**	**
Female	37,000	**	**	**	**	**	**	**	**	**	**	**
Race	40,700	40,300	38,200	43,400	36,600	50,400	51,900	43,800	35,100	**	**	**
White	40,700	40,200	36,700	43,300	36,600	50,700	52,100	44,400	34,800	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	45,800	47,300	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Other physical scientists												
Sex	37,200	37,500	37,400	38,600	34,500	46,300	49,400	40,200	**	**	25,100	32,100
Male	37,500	38,000	35,600	39,400	34,800	46,600	49,600	40,200	**	**	25,100	**
Female	32,300	32,200	**	**	**	**	**	**	**	**	**	**
Race	37,200	37,500	37,400	38,600	34,500	46,300	49,400	40,200	**	**	25,100	32,100
White	37,000	37,600	36,000	39,200	34,600	47,300	49,500	37,300	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Mathematical scientists												
Sex	36,900	37,900	39,800	38,800	36,500	44,400	46,700	41,800	34,100	32,200	30,300	32,100
Male	37,800	39,200	39,900	39,100	37,800	45,100	47,200	42,700	34,900	**	30,500	33,300
Female	30,600	30,300	**	27,400	32,000	41,100	42,200	40,000	28,600	**	**	28,900
Race	36,900	37,900	39,800	38,800	36,500	44,400	46,700	41,800	34,100	32,200	30,300	32,100
White	37,200	38,000	39,200	37,100	37,500	44,200	46,600	42,000	34,200	**	30,500	32,600
Black	32,300	**	**	**	**	**	**	**	**	**	**	**
Asian	33,400	43,200	**	**	**	**	**	**	45,100	**	**	28,000
Other[2]	28,600	**	**	**	**	**	**	**	**	**	**	**
Mathematicians												
Sex	37,600	38,000	39,900	36,300	36,600	44,500	47,300	42,100	33,800	**	30,500	32,400
Male	38,400	39,200	40,000	38,200	37,700	44,900	47,500	42,700	36,100	**	**	33,000
Female	32,100	30,200	**	**	**	41,700	**	39,000	28,300	**	**	30,000
Race	37,600	38,000	39,900	36,300	36,600	44,500	47,300	42,100	33,800	**	30,500	32,400
White	37,900	37,900	39,300	36,400	37,600	44,100	46,800	42,200	34,000	**	30,800	32,600
Black	32,400	**	**	**	**	**	**	**	**	**	**	**
Asian	44,000	**	**	**	**	**	**	**	45,000	**	**	**
Other[2]	30,100	**	**	**	**	**	**	**	**	**	**	**
Statisticians												
Sex	34,200	37,400	**	38,100	**	42,500	43,700	**	34,700	**	**	31,400
Male	35,800	39,500	**	39,700	**	45,900	46,100	**	34,500	**	**	34,300
Female	28,700	**	**	**	**	**	**	**	**	**	**	28,300
Race	34,200	37,400	**	38,100	**	42,500	43,700	**	34,700	**	**	31,400
White	35,000	39,100	**	39,500	**	45,600	**	**	34,600	**	**	32,000
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	30,300	**	**	**	**	**	**	**	**	**	**	28,100
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Computer specialists												
Sex	32,800	34,400	**	35,500	33,800	37,300	39,000	36,400	30,300	37,600	30,500	31,100
Male	34,100	35,800	**	35,500	35,700	37,700	40,100	36,700	31,200	38,100	33,000	32,200
Female	28,900	29,500	**	**	29,300	36,200	36,800	35,400	25,600	32,600	25,300	28,200
Race	32,800	34,400	**	35,500	33,800	37,300	39,000	36,400	30,300	37,600	30,500	31,100
White	32,900	35,000	**	35,400	34,600	37,700	40,300	36,500	30,100	37,800	30,900	31,100
Black	30,900	29,500	**	**	27,800	32,500	**	**	**	**	**	31,000
Asian	32,800	32,200	**	**	30,700	31,100	33,800	**	**	37,800	**	33,600
Other[2]	30,400	**	**	**	**	**	**	**	**	**	**	29,400

See Footnotes at end of Table

Table B-31. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Primary Work Activity: 1982—continued

Field, Sex, and Race	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Environmental scientists												
Sex	$39,600	$36,200	$35,700	$34,900	$40,500	$52,600	$50,900	$54,400	$34,800	$41,000	$36,900	$31,500
Male	40,300	37,300	36,600	35,900	41,200	53,000	51,400	54,900	35,000	42,300	37,300	31,700
Female	30,600	30,600	**	30,300	31,800	40,200	**	**	**	**	**	28,100
Race	39,600	36,200	35,700	34,900	40,500	52,600	50,900	54,400	34,800	41,000	36,900	31,500
White	40,000	36,300	35,700	35,200	40,400	53,200	51,900	54,700	34,800	41,000	36,900	31,300
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	31,400	26,900	**	**	**	**	**	**	**	**	**	**
Other[2]	37,500	**	**	**	**	**	**	**	**	**	**	**
Earth scientists												
Sex	40,600	36,700	35,100	34,800	42,400	54,600	51,200	58,300	35,000	46,200	38,500	31,800
Male	41,400	37,900	35,500	36,000	43,000	55,200	51,800	59,000	35,100	47,900	38,900	32,200
Female	30,600	30,600	**	30,200	36,100	33,800	**	**	**	**	**	**
Race	40,600	36,700	35,100	34,800	42,400	54,600	51,200	58,300	35,000	46,200	38,500	31,800
White	40,800	36,600	35,200	34,800	42,400	55,400	52,300	58,800	34,900	46,500	38,400	31,200
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	32,900	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Oceanographers												
Sex	35,200	33,400	**	**	**	**	**	**	**	**	**	**
Male	37,200	35,100	**	**	**	**	**	**	**	**	**	**
Female	**	**	**	**	**	**	**	**	**	**	**	**
Race	35,200	33,400	**	**	**	**	**	**	**	**	**	**
White	35,400	33,500	**	**	**	**	**	**	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Atmospheric scientists												
Sex	35,500	35,800	36,400	34,900	**	43,600	**	36,500	**	**	33,700	31,500
Male	35,600	36,700	40,500	35,300	**	43,500	**	36,500	**	**	33,800	31,600
Female	**	**	**	**	**	**	**	**	**	**	**	**
Race	35,500	35,800	36,400	34,900	**	43,600	**	36,500	**	**	33,700	31,500
White	35,700	36,400	36,300	37,100	**	45,200	**	**	**	**	33,800	31,500
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Engineers												
Sex	36,100	34,100	34,800	36,500	33,800	43,000	46,800	41,000	36,700	36,600	32,100	32,300
Male	36,200	34,300	34,900	36,600	34,000	43,100	46,800	41,100	36,800	36,700	32,200	32,500
Female	29,900	29,800	**	29,000	29,900	33,600	36,700	32,200	36,000	30,300	28,600	28,300
Race	36,100	34,100	34,800	36,500	33,800	43,000	46,800	41,000	36,700	36,600	32,100	32,300
White	36,200	34,200	34,900	36,500	33,900	43,500	46,900	41,700	36,700	36,600	32,200	32,300
Black	31,700	31,900	**	31,600	31,800	35,000	41,300	32,300	31,600	32,300	30,700	30,200
Asian	35,400	34,900	31,000	39,000	34,500	40,600	46,900	36,600	41,900	36,600	30,500	33,000
Other[2]	34,200	32,900	**	**	32,500	38,600	39,500	37,900	**	36,700	30,600	32,600
Aeronautical / Astronautical												
Sex	39,900	37,100	**	39,800	36,700	46,200	47,800	43,000	**	**	33,600	35,200
Male	40,000	37,300	**	40,000	36,800	46,200	47,800	43,000	**	**	33,700	35,300
Female	30,100	27,700	**	**	27,400	**	**	**	**	**	**	**
Race	39,900	37,100	**	39,800	36,700	46,200	47,800	43,000	**	**	33,600	35,200
White	40,100	37,100	**	39,300	36,700	46,300	48,000	43,100	**	**	33,700	35,200
Black	35,200	35,600	**	**	**	**	**	**	**	**	**	**
Asian	38,200	37,600	**	**	36,200	**	**	**	**	**	**	**
Other[2]	39,800	**	**	**	**	**	**	**	**	**	**	**
Chemical												
Sex	40,600	36,800	**	39,500	36,600	51,400	50,200	52,000	**	45,900	34,600	35,600
Male	40,800	37,100	**	40,200	36,900	51,500	50,300	52,100	**	46,700	35,200	35,900
Female	30,700	31,000	**	**	31,000	35,300	**	**	**	**	29,500	**
Race	40,600	36,800	**	39,500	36,600	51,400	50,200	52,000	**	45,900	34,600	35,600
White	40,900	37,200	**	39,100	37,000	51,700	50,700	52,100	**	47,700	35,200	35,900
Black	30,700	**	**	**	**	**	**	**	**	**	**	**
Asian	35,400	34,700	**	40,500	33,700	45,700	**	**	**	**	29,800	**
Other[2]	36,100	**	**	**	**	**	**	**	**	**	**	**
Civil												
Sex	33,900	30,500	**	32,800	30,400	38,500	40,300	38,300	35,500	35,300	30,800	30,100
Male	34,100	30,600	**	33,000	30,400	38,600	40,300	38,400	36,000	35,400	30,800	30,300
Female	27,000	28,400	**	**	28,500	28,100	**	29,200	**	25,900	27,500	24,800
Race	33,900	30,500	**	32,800	30,400	38,500	40,300	38,300	35,500	35,300	30,800	30,100
White	34,100	30,500	**	32,900	30,400	38,700	40,400	38,500	33,200	35,400	30,900	30,300
Black	30,800	30,200	**	**	30,100	31,100	**	30,900	**	**	30,900	**
Asian	33,300	30,900	**	**	31,100	37,500	**	37,000	**	35,100	30,500	27,900
Other[2]	30,400	28,400	**	**	28,100	32,500	**	**	**	35,000	28,700	**
Electrical / Electronic												
Sex	36,600	34,700	36,400	36,400	34,500	45,600	48,000	42,500	37,300	37,500	32,200	33,300
Male	36,700	34,800	36,500	36,600	34,600	45,600	48,000	42,500	37,000	37,600	32,300	33,300
Female	30,300	30,200	**	**	30,200	39,500	**	**	**	**	28,200	33,500
Race	36,600	34,700	36,400	36,400	34,500	45,600	48,000	42,500	37,300	37,500	32,200	33,300
White	36,700	34,600	35,000	36,200	34,400	45,700	48,000	42,700	37,100	37,900	32,400	33,300
Black	32,500	32,100	**	**	32,100	38,500	47,500	33,100	**	**	32,100	30,800
Asian	36,700	36,200	**	40,800	35,700	46,600	49,800	40,600	**	38,000	30,100	39,000
Other[2]	35,200	34,700	**	**	34,700	38,700	**	**	**	**	**	**

See Footnotes at end of Table

Table B-31. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Primary Work Activity: 1982—continued

Field, Sex, and Race	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Industrial												
Sex	$32,200	$28,600	**	**	$28,600	$40,000	$40,300	$39,400	$36,200	$37,700	$30,100	$30,500
Male	32,500	28,700	**	**	28,700	40,100	40,500	40,000	36,700	38,700	30,200	30,800
Female	25,700	25,800	**	**	25,800	27,800	**	28,800	**	**	24,300	25,300
Race	32,200	28,600	**	**	28,600	40,000	40,300	39,400	36,200	37,700	30,100	30,500
White	32,400	28,700	**	**	28,700	40,100	40,100	40,100	36,100	37,200	30,100	30,800
Black	26,500	26,900	**	**	**	**	**	**	**	**	28,800	**
Asian	30,100	**	**	**	**	34,900	**	**	**	**	27,800	**
Other[2]	29,300	**	**	**	**	**	**	**	**	**	**	**
Materials												
Sex	37,500	34,400	**	32,600	34,900	46,900	48,400	41,300	**	**	31,500	39,100
Male	37,900	34,800	**	32,700	35,200	47,000	48,500	41,300	**	**	31,800	**
Female	28,700	27,500	**	**	28,200	**	**	**	**	**	**	**
Race	37,500	34,400	**	32,600	34,900	46,900	48,400	41,300	**	**	31,500	39,100
White	38,000	34,500	**	32,700	35,000	47,400	48,600	42,100	**	**	31,200	39,300
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	34,000	32,800	**	**	34,700	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Mechanical												
Sex	36,600	33,600	**	36,300	33,500	44,800	45,900	44,100	35,400	38,600	33,300	32,300
Male	36,600	33,700	**	36,400	33,600	44,800	46,000	44,100	36,000	39,100	33,400	32,400
Female	30,000	29,300	**	**	29,100	**	**	**	**	**	30,400	**
Race	36,600	33,600	**	36,300	33,500	44,800	45,900	44,100	35,400	38,600	33,300	32,300
White	36,700	33,600	**	36,200	33,500	45,100	46,100	44,500	35,100	38,300	33,500	32,200
Black	33,700	30,800	**	**	31,000	40,800	**	**	**	**	35,700	**
Asian	36,000	34,700	**	**	34,300	40,500	51,000	37,000	**	40,200	30,700	**
Other[2]	33,900	33,000	**	**	32,300	40,200	**	**	**	**	30,300	**
Mining												
Sex	40,600	40,000	**	**	38,500	50,700	**	49,900	**	**	33,900	34,300
Male	40,700	40,100	**	**	38,800	50,800	**	50,000	**	**	34,100	34,300
Female	**	**	**	**	**	**	**	**	**	**	**	**
Race	40,600	40,000	**	**	38,500	50,700	**	49,900	**	**	33,900	34,300
White	40,800	40,000	**	**	38,200	51,400	**	50,800	**	**	34,000	34,300
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Nuclear												
Sex	40,300	38,200	**	35,300	37,400	46,700	49,800	45,000	**	**	34,800	**
Male	40,400	38,300	**	**	37,600	46,800	49,800	45,000	**	**	34,900	**
Female	**	**	**	**	**	**	**	**	**	**	**	**
Race	40,300	38,200	**	35,300	37,400	46,700	49,800	45,000	**	**	34,800	**
White	40,500	38,300	**	**	38,100	46,900	49,700	45,000	**	**	34,500	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	36,500	36,000	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Petroleum												
Sex	50,700	45,200	**	**	43,000	63,300	**	66,100	**	61,800	45,100	42,700
Male	51,200	45,500	**	**	45,300	63,500	**	66,700	**	61,800	45,400	42,900
Female	40,100	**	**	**	**	**	**	**	**	**	**	**
Race	50,700	45,200	**	**	43,000	63,300	**	66,100	**	61,800	45,100	42,700
White	50,900	45,400	**	**	45,400	63,500	**	66,200	**	60,500	45,500	42,200
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Other												
Sex	35,000	34,000	33,900	36,500	33,700	40,400	43,400	39,400	35,500	35,800	31,400	32,100
Male	35,100	34,200	**	36,700	33,900	40,500	43,400	39,600	35,300	36,000	31,600	32,300
Female	30,700	30,300	**	26,900	31,000	33,700	**	32,400	**	30,900	29,700	29,400
Race	35,000	34,000	33,900	36,500	33,700	40,400	43,400	39,400	35,500	35,800	31,400	32,100
White	35,100	34,000	**	36,800	33,700	40,600	43,500	40,000	35,900	35,900	31,600	32,100
Black	31,000	34,000	**	**	34,000	32,900	**	30,900	**	**	29,600	29,800
Asian	34,100	34,500	**	32,200	34,900	37,100	45,400	33,200	**	40,200	31,000	33,300
Other[2]	35,000	32,900	**	**	33,000	37,800	**	37,500	**	**	27,400	33,800
Life scientists												
Sex	30,800	30,500	32,100	30,200	27,700	32,800	40,800	30,900	33,500	26,100	25,600	25,900
Male	32,000	32,300	34,000	30,900	29,100	33,800	42,800	31,100	34,700	26,100	25,800	27,200
Female	24,900	23,000	24,200	22,700	22,600	28,000	32,500	25,000	28,700	**	22,800	22,800
Race	30,800	30,500	32,100	30,200	27,700	32,800	40,800	30,900	33,500	26,100	25,600	25,900
White	30,900	30,700	32,600	30,300	27,600	32,900	41,200	30,900	33,500	26,000	25,800	25,900
Black	25,700	26,100	**	28,300	**	37,800	**	39,000	**	**	**	**
Asian	28,700	26,800	25,400	27,800	**	25,200	38,300	**	34,600	**	23,000	24,500
Other[2]	29,900	25,300	**	**	**	**	**	**	**	**	**	**
Biologists												
Sex	29,500	29,100	31,200	27,500	25,900	[illegible]	37,000	30,000	32,600	24,900	24,600	24,900
Male	30,300	30,600	33,500	29,600	27,500	31,000	38,500	30,200	33,900	25,000	24,800	25,800
Female	23,900	21,400	19,400	22,800	22,600	26,200	32,500	24,000	28,600	**	22,200	21,700
Race	29,500	29,100	31,200	27,500	25,900	30,900	37,000	30,000	32,600	24,900	24,600	24,900
White	29,700	29,400	32,300	27,700	25,600	30,900	36,900	30,000	32,600	25,000	24,700	25,100
Black	23,800	24,000	**	**	**	39,000	**	39,100	**	**	**	**
Asian	28,000	26,200	22,300	**	**	35,000	**	**	**	**	**	**
Other[2]	22,000	**	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-31. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Primary Work Activity: 1982—continued

Field, Sex, and Race	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Biochemists												
Sex	$34,400	$32,200	$30,900	$33,200	**	$48,900	$50,100	**	$33,700	**	**	**
Male	36,000	33,800	33,500	33,700	**	48,600	**	**	36,500	**	**	**
Female	27,300	25,600	25,100	**	**	**	**	**	**	**	**	**
Race	34,400	32,200	30,800	33,200	**	48,900	50,100	**	33,700	**	**	**
White	34,800	33,100	31,700	33,800	**	49,400	**	**	33,300	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	31,100	27,000	25,800	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Agricultural scientists												
Sex	31,100	30,500	29,500	30,400	31,600	36,000	41,600	35,100	32,600	**	29,400	30,200
Male	32,200	31,600	28,600	32,000	32,000	36,200	41,900	35,400	32,900	**	30,100	30,600
Female	21,700	20,500	**	13,600	**	**	**	**	**	**	**	**
Race	31,100	30,500	29,500	30,400	31,600	36,000	41,600	35,100	32,600	**	29,400	30,200
White	31,200	30,400	29,700	30,500	31,200	36,200	41,700	35,200	32,700	**	30,000	30,200
Black	27,200	**	**	**	**	**	**	**	**	**	**	**
Asian	24,500	30,600	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Medical scientists												
Sex	41,800	39,000	37,500	47,600	**	52,900	56,700	49,200	45,400	**	**	32,700
Male	48,900	42,500	40,200	50,200	**	57,200	57,600	56,600	50,600	**	**	42,900
Female	30,300	28,900	32,100	32,100	**	**	**	**	30,800	**	**	26,000
Race	41,800	39,000	37,500	47,600	**	52,900	56,700	49,200	45,400	**	**	32,700
White	42,200	40,400	37,800	49,400	**	53,500	57,800	49,200	41,900	**	**	32,800
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	30,700	22,300	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Psychologists												
Sex	30,500	30,500	32,100	31,500	28,000	35,300	37,100	35,100	30,000	33,600	30,200	28,600
Male	32,200	31,200	35,600	31,100	**	37,100	40,200	36,000	31,000	33,900	**	30,100
Female	26,700	26,600	**	**	**	29,500	**	29,500	26,600	**	24,000	26,200
Race	30,500	30,500	32,100	31,500	28,000	35,300	37,100	35,100	30,000	33,600	30,200	28,600
White	30,600	30,600	32,100	31,900	**	35,300	37,200	35,100	30,100	34,900	30,200	28,500
Black	26,500	**	**	**	**	**	**	**	**	**	**	27,500
Asian	30,300	**	**	**	**	**	**	**	**	**	**	30,100
Other[2]	30,200	**	**	**	**	**	**	**	**	**	**	**
Social scientists												
Sex	34,300	33,900	33,100	33,800	37,000	37,100	40,800	36,300	32,300	42,800	30,700	30,300
Male	36,500	36,500	34,000	36,100	40,500	40,200	42,600	38,600	34,300	44,600	32,600	34,800
Female	26,800	27,100	31,000	27,400	**	27,200	35,200	25,400	26,600	**	**	22,900
Race	34,300	33,900	33,100	33,800	37,000	37,100	40,800	36,300	32,300	42,800	30,700	30,300
White	34,800	33,700	32,000	33,700	37,700	37,700	40,900	36,800	32,500	48,900	30,700	30,300
Black	29,100	**	**	**	**	32,300	**	32,100	**	**	**	21,800
Asian	33,600	40,500	**	36,500	**	**	**	**	30,100	**	**	43,500
Other[2]	35,100	**	**	**	**	**	**	**	**	**	**	**
Economists												
Sex	40,000	40,800	44,000	38,900	51,100	42,200	47,800	40,600	34,600	51,100	36,400	40,300
Male	40,500	42,000	44,700	40,500	51,900	42,300	49,200	40,600	35,500	52,900	36,400	42,000
Female	32,400	30,800	**	33,100	**	36,400	**	**	29,600	**	**	34,400
Race	40,000	40,800	44,000	38,900	51,100	42,200	47,800	40,600	34,600	51,100	36,400	40,300
White	40,100	40,900	44,100	39,400	50,500	42,300	47,700	40,900	35,600	52,500	36,400	40,100
Black	30,300	**	**	**	**	**	**	**	**	**	**	**
Asian	40,500	47,000	**	**	**	**	**	**	**	**	**	51,600
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Sociologists / anthropologists												
Sex	29,400	29,000	32,000	26,000	**	30,300	35,800	29,600	30,100	**	**	20,000
Male	30,800	30,200	33,300	25,600	**	32,400	40,600	32,200	33,500	**	**	23,300
Female	26,300	26,900	**	28,300	**	22,700	**	**	26,600	**	**	**
Race	29,400	29,000	32,000	26,000	**	30,300	35,800	29,600	30,100	**	**	20,000
White	29,000	27,700	31,400	25,900	**	30,200	32,600	30,000	30,000	**	**	20,300
Black	29,400	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Other social scientists												
Sex	31,000	32,600	**	33,500	**	35,400	36,500	35,100	30,600	**	25,100	23,600
Male	34,300	33,600	**	36,000	**	36,500	40,100	36,100	33,500	**	25,700	26,500
Female	24,600	**	**	**	**	27,500	**	27,300	25,100	**	**	20,900
Race	31,000	32,600	**	33,500	**	35,400	36,500	35,100	30,600	**	25,100	23,600
White	31,700	32,600	**	32,800	**	35,900	36,600	35,500	30,800	**	25,600	23,700
Black	25,700	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**

**Fewer than 20 sample cases reported.

[1] Includes Report Writing, Statistical Work, Computer Applications, Other, and Not Reported

[2] Not Reported are included in Other.

Source: National Science Foundation.

Table B-32. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Number of Years of Professional Experience: 1982

Field, Sex, and Race	Total	5 and fewer	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41 and over	Not reported
Total, all fields											
Sex	$35,300	$27,500	$30,800	$35,400	$38,400	$40,500	$40,500	$42,100	$40,500	$41,800	$42,100
Male	35,900	28,000	31,100	35,800	38,700	40,600	40,600	42,200	40,600	42,000	42,400
Female	28,200	25,100	27,300	30,300	32,500	34,800	32,600	32,900	36,600	**	**
Race	35,300	27,500	30,800	35,400	38,400	40,500	40,500	42,100	40,500	41,800	42,100
White	35,500	27,500	30,700	35,500	38,300	40,600	40,500	42,100	40,500	42,000	42,200
Black	30,800	26,200	30,100	32,300	35,600	36,600	37,900	35,800	**	**	**
Asian	34,500	28,200	32,500	35,300	38,500	37,100	40,000	44,900	**	**	**
Other[1]	33,000	26,400	31,600	33,900	40,600	37,100	40,000	42,200	**	**	**
Physical scientists											
Sex	36,400	25,200	30,500	35,900	38,400	40,800	41,600	45,500	46,100	**	**
Male	37,500	25,800	31,300	37,100	39,400	41,000	42,300	45,700	47,700	**	**
Female	26,900	22,600	24,600	28,500	25,700	33,100	36,800	42,200	**	**	**
Race	36,400	25,200	30,500	35,900	38,400	40,800	41,600	45,500	46,100	**	**
White	36,900	25,200	30,900	37,200	39,000	40,900	40,900	45,900	46,200	**	**
Black	31,200	**	24,300	30,900	30,600	**	42,600	**	**	**	**
Asian	32,000	23,200	25,900	30,500	33,400	36,800	**	**	**	**	**
Other[1]	39,000	**	**	**	**	**	**	**	**	**	**
Chemists											
Sex	35,100	24,200	28,300	34,600	35,600	39,100	41,100	44,100	43,900	**	**
Male	36,000	24,600	29,600	35,800	36,300	39,400	41,900	44,400	46,500	**	**
Female	25,500	22,300	24,300	26,700	25,400	30,200	35,200	**	**	**	**
Race	35,100	24,200	28,300	34,600	35,600	39,100	41,100	44,100	43,900	**	**
White	35,500	24,300	29,100	35,900	36,300	39,300	40,700	44,400	43,900	**	**
Black	30,800	**	23,200	30,700	29,700	**	**	**	**	**	**
Asian	29,500	23,200	24,500	28,500	30,400	34,700	**	**	**	**	**
Other[1]	34,000	**	**	**	**	**	**	**	**	**	**
Physicists / astronomers											
Sex	40,700	29,700	33,100	38,400	43,700	46,800	46,500	51,900	**	**	**
Male	40,900	30,000	33,400	38,700	43,800	46,800	47,600	51,900	**	**	**
Female	37,000	**	**	**	**	**	**	**	**	**	**
Race	40,700	29,700	33,100	38,400	43,700	46,800	46,500	51,900	**	**	**
White	40,700	29,800	31,900	38,700	43,400	46,800	46,400	52,900	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**
Asian	45,600	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Other physical scientists											
Sex	37,200	29,000	33,900	38,300	38,900	39,500	42,300	43,800	**	**	**
Male	37,500	29,200	34,400	38,300	39,000	39,600	42,500	43,900	**	**	**
Female	32,300	**	**	**	**	**	**	**	**	**	**
Race	37,200	29,000	33,900	38,300	38,900	39,500	42,300	43,800	**	**	**
White	37,000	26,600	33,800	38,200	39,000	39,300	42,300	45,600	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Mathematical scientists											
Sex	36,900	28,400	30,400	36,800	40,500	42,300	46,700	40,600	44,900	**	**
Male	37,800	28,500	30,600	37,500	40,700	42,600	46,200	40,900	**	**	**
Female	30,600	28,300	27,900	32,500	40,200	**	**	**	**	**	**
Race	36,900	28,400	30,400	36,800	40,500	42,300	46,700	40,600	44,900	**	**
White	37,200	28,600	30,600	37,200	40,300	42,300	47,000	40,900	46,400	**	**
Black	32,300	**	**	**	**	**	**	**	**	**	**
Asian	33,400	**	25,600	**	**	**	**	**	**	**	**
Other[1]	28,600	**	**	**	**	**	**	**	**	**	**
Mathematicians											
Sex	37,600	28,400	29,600	36,100	40,800	42,300	46,900	40,600	44,800	**	**
Male	38,400	28,200	30,000	37,000	40,[illegible]	42,500	46,200	40,700	**	**	**
Female	32,100	26,700	26,800	32,200	40,600	**	**	**	**	**	**
Race	37,600	28,400	29,600	36,100	40,800	42,300	46,900	40,600	44,800	**	**
White	37,900	26,600	29,600	36,700	40,500	42,300	47,100	40,600	**	**	**
Black	32,400	**	**	**	**	**	**	**	**	**	**
Asian	44,000	**	**	**	**	**	**	**	**	**	**
Other[1]	30,100	**	**	**	**	**	**	**	**	**	**
Statisticians											
Sex	34,200	28,400	32,700	38,000	36,300	**	**	**	**	**	**
Male	35,800	29,300	33,400	41,500	36,700	**	**	**	**	**	**
Female	28,700	28,000	28,800	**	**	**	**	**	**	**	**
Race	34,200	28,400	32,700	38,000	36,300	**	**	**	**	**	**
White	35,000	28,500	33,100	38,600	38,500	**	**	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**
Asian	30,300	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Computer specialists											
Sex	32,800	27,300	31,000	35,200	37,100	39,000	37,900	36,500	**	**	**
Male	34,100	28,400	31,800	35,700	37,600	38,800	37,500	35,900	**	**	**
Female	28,900	25,600	28,700	32,500	32,200	41,500	**	**	**	**	**
Race	32,800	27,300	31,000	35,200	37,100	39,000	37,900	36,500	**	**	**
White	32,900	27,500	31,000	35,300	37,100	39,500	37,600	36,400	**	**	**
Black	30,900	25,600	30,300	32,900	38,500	**	**	**	**	**	**
Asian	32,800	27,500	33,500	36,100	40,100	**	**	**	**	**	**
Other[1]	30,400	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-32. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Number of Years of Professional Experience: 1982—continued

Field, Sex, and Race	Total	5 and fewer	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41 and over	Not reported
Environmental scientists											
Sex	$39,600	$30,200	$35,000	$37,000	$43,200	$43,100	$52,600	$55,300	$49,900	**	**
Male	40,300	30,500	34,900	37,400	43,500	43,100	52,700	55,400	50,700	**	**
Female	30,600	28,000	35,100	26,200	**	**	**	**	**	**	**
Race	39,600	30,200	[illegible]	37,000	43,200	43,100	52,600	55,300	49,900	**	**
White	40,000	30,200	35,200	37,000	43,800	44,200	52,800	55,300	49,400	**	**
Black	**	**	**	**	**	**	**	**	**	**	**
Asian	31,400	**	**	**	**	**	**	**	**	**	**
Other[1]	37,500	**	**	**	**	**	**	**	**	**	**
Earth scientists											
Sex	40,600	30,900	35,700	40,100	46,200	44,400	52,900	57,200	**	**	**
Male	41,400	32,300	35,800	40,300	47,000	44,200	52,900	57,300	**	**	**
Female	30,600	28,100	33,400	**	**	**	**	**	**	**	**
Race	40,600	30,900	35,700	40,100	46,200	44,400	52,900	57,200	**	**	**
White	40,800	30,800	36,000	40,100	46,800	45,200	53,100	57,200	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**
Asian	32,900	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Oceanographers											
Sex	36,200	**	**	**	**	**	**	**	**	**	**
Male	37,200	**	**	**	**	**	**	**	**	**	**
Female	**	**	**	**	**	**	**	**	**	**	**
Race	36,200	**	**	**	**	**	**	**	**	**	**
White	35,400	**	**	**	**	**	**	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Atmospheric scientists											
Sex	35,500	23,200	32,200	36,600	**	36,900	**	**	**	**	**
Male	35,800	23,100	31,300	36,900	**	36,900	**	**	**	**	**
Female	**	**	**	**	**	**	**	**	**	**	**
Race	35,500	23,200	32,200	36,600	**	36,900	**	**	**	**	**
White	35,700	23,200	32,400	36,500	**	**	**	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Engineers											
Sex	36,100	28,400	32,100	35,800	39,000	40,600	40,400	41,300	40,100	40,500	40,200
Male	36,200	28,500	32,100	35,800	39,000	40,600	40,400	41,300	40,100	40,600	40,200
Female	29,900	27,500	30,800	32,600	32,200	35,700	32,300	35,300	**	**	**
Race	36,100	28,400	32,100	35,800	39,000	40,600	40,400	41,300	40,100	40,500	40,200
White	36,200	28,400	32,000	35,800	38,900	40,700	40,400	41,300	40,100	40,600	40,200
Black	31,700	27,200	31,000	33,300	35,000	38,100	35,900	37,100	**	**	**
Asian	35,400	29,500	33,400	35,700	38,800	37,000	39,500	43,500	**	**	**
Other[1]	34,200	27,100	32,100	35,800	42,300	37,200	45,700	37,800	**	**	**
Aeronautical / Astronautical											
Sex	39,900	28,200	30,900	36,900	40,500	42,600	42,000	42,600	40,700	39,900	**
Male	40,000	28,300	30,900	37,100	40,500	42,600	42,000	42,600	40,700	39,900	**
Female	30,100	26,400	**	**	**	**	**	**	**	**	**
Race	39,900	28,200	30,900	36,900	40,500	42,600	42,000	42,600	40,700	39,900	**
White	40,100	28,100	30,700	36,900	40,500	42,500	42,100	42,700	40,700	39,800	**
Black	35,200	**	**	**	**	**	**	**	**	**	**
Asian	38,200	**	**	**	**	**	**	**	**	**	**
Other[1]	39,800	**	**	**	**	**	**	**	**	**	**
Chemical											
Sex	40,600	30,400	35,700	40,300	46,300	49,400	47,900	50,200	50,600	**	**
Male	40,800	30,500	35,700	40,400	46,500	49,400	48,000	50,200	50,500	**	**
Female	30,700	29,600	34,500	**	**	**	**	**	**	**	**
Race	40,600	30,400	35,700	40,300	46,300	49,400	47,900	50,200	50,600	**	**
White	40,900	30,500	35,800	40,400	46,500	50,000	47,900	50,200	50,600	**	**
Black	30,700	**	**	**	**	**	**	**	**	**	**
Asian	35,400	30,300	35,500	40,300	**	**	**	**	**	**	**
Other[1]	36,100	**	**	**	**	**	**	**	**	**	**
Civil											
Sex	33,900	26,600	30,400	33,200	36,500	36,900	39,100	40,000	40,200	40,900	35,800
Male	34,100	26,700	30,400	33,300	36,500	36,900	39,300	40,000	40,200	40,900	35,800
Female	27,000	25,500	28,900	28,300	**	**	**	**	**	**	**
Race	33,900	26,600	30,400	33,200	36,500	36,900	39,100	40,000	40,200	40,900	35,800
White	34,100	26,600	30,300	33,500	36,500	37,200	39,300	40,100	40,100	43,200	35,900
Black	30,800	19,200	29,600	30,900	36,600	33,500	**	**	**	**	**
Asian	33,300	27,500	31,600	31,400	36,200	34,000	36,800	**	**	**	**
Other[1]	30,400	**	27,100	32,900	**	**	**	**	**	**	**
Electrical / Electronic											
Sex	36,600	28,900	32,800	36,300	40,200	41,400	40,500	42,700	40,300	40,100	**
Male	36,700	29,000	32,800	36,300	[illegible]	41,500	40,500	42,700	40,300	40,000	**
Female	30,300	27,600	30,900	38,800	[illegible]	**	**	**	**	**	**
Race	36,600	28,900	32,800	36,300	40,200	41,400	40,500	42,700	40,300	40,100	**
White	36,700	28,800	32,700	36,300	40,100	41,700	40,400	42,700	40,500	40,000	**
Black	32,500	28,800	32,000	36,000	36,800	43,000	**	**	**	**	**
Asian	36,700	30,400	35,400	37,200	41,500	39,400	43,400	**	**	**	**
Other[1]	35,200	28,200	32,100	33,900	40,500	**	**	**	**	**	**

See Footnotes at end of Table

Table B-32. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Number of Years of Professional Experience: 1982—continued

Field, Sex, and Race	Total	5 and fewer	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41 and over	Not reported
Industrial											
Sex	$32,200	$25,900	$29,200	$32,700	$35,100	$40,400	$36,500	$36,300	$40,400	**	**
Male	32,500	25,900	29,400	32,700	35,200	40,500	36,500	36,400	40,500	**	**
Female	25,700	25,800	25,800	**	**	**	**	**	**	**	**
Race	32,200	25,900	29,200	32,700	35,100	40,400	36,500	36,300	40,400	**	**
White	32,400	25,800	29,000	32,900	35,200	40,400	36,700	36,400	40,500	**	**
Black	28,500	**	28,300	**	**	**	**	**	**	**	**
Asian	30,100	**	30,300	29,200	**	**	**	**	**	**	**
Other[1]	29,300	**	**	**	**	**	**	**	**	**	**
Materials											
Sex	37,500	28,800	33,000	38,200	40,000	41,000	40,400	45,900	35,200	**	**
Male	37,900	28,800	33,000	38,300	39,800	41,100	40,500	45,900	35,200	**	**
Female	28,700	27,900	**	**	**	**	**	**	**	**	**
Race	37,500	28,800	33,000	38,200	40,000	41,000	40,400	45,900	35,200	**	**
White	38,000	29,100	33,800	37,700	40,100	41,300	40,200	45,800	35,200	**	**
Black	**	**	**	**	**	**	**	**	**	**	**
Asian	34,000	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Mechanical											
Sex	36,800	28,300	32,200	35,900	40,200	40,800	40,400	40,900	37,400	42,000	33,900
Male	36,800	28,400	32,300	35,900	40,300	40,800	40,400	40,900	37,400	42,100	33,900
Female	30,000	26,700	30,000	**	**	**	**	**	**	**	**
Race	36,800	28,300	32,200	35,900	40,200	40,800	40,400	40,900	37,400	42,000	33,900
White	36,700	28,300	32,000	36,000	40,300	41,000	40,400	40,800	37,400	42,000	34,000
Black	33,700	27,300	35,100	**	40,000	**	**	**	**	**	**
Asian	36,000	29,500	33,900	35,300	36,900	37,000	40,900	**	**	**	**
Other[1]	33,900	**	33,800	**	**	**	**	**	**	**	**
Mining											
Sex	40,600	31,100	40,000	**	**	**	**	**	**	**	**
Male	40,700	31,800	40,100	**	**	**	**	**	**	**	**
Female	**	**	**	**	**	**	**	**	**	**	**
Race	40,600	31,100	40,000	**	**	**	**	**	**	**	**
White	40,800	32,100	40,000	**	**	**	**	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Nuclear											
Sex	40,300	30,700	35,800	40,600	46,800	**	**	**	**	**	**
Male	40,400	30,700	35,900	40,700	46,800	**	**	**	**	**	**
Female	**	**	**	**	**	**	**	**	**	**	**
Race	40,300	30,700	35,800	40,600	46,800	**	**	**	**	**	**
White	40,500	31,000	35,700	41,000	47,400	**	**	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**
Asian	35,500	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Petroleum											
Sex	50,700	38,500	47,100	55,100	**	56,000	57,300	61,900	**	**	**
Male	51,200	39,100	47,500	55,900	**	56,200	57,300	61,900	**	**	**
Female	40,100	36,200	**	**	**	**	**	**	**	**	**
Race	50,700	38,500	47,100	55,100	**	56,000	57,300	61,900	**	**	**
White	50,900	39,000	47,500	54,800	**	54,000	58,000	61,900	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Other											
Sex	35,000	27,700	31,400	35,300	36,500	36,000	38,800	40,000	39,100	39,300	**
Male	35,100	27,700	31,500	35,300	36,500	36,100	38,900	40,100	39,800	40,100	**
Female	30,700	28,100	31,000	32,000	35,000	33,800	**	**	**	**	**
Race	35,000	27,700	31,400	35,300	36,500	36,000	38,800	40,000	39,100	39,300	**
White	35,100	27,700	31,500	35,100	36,400	36,300	38,800	40,000	39,100	40,100	**
Black	31,000	27,200	30,500	34,400	30,800	35,800	**	**	**	**	**
Asian	34,100	32,100	31,000	36,300	37,900	35,300	35,400	**	**	**	**
Other[1]	35,000	21,800	32,500	39,800	**	**	**	**	**	**	**
Life scientists											
Sex	30,800	21,200	25,400	31,900	33,700	36,900	39,900	41,400	41,100	51,300	**
Male	32,000	22,400	25,700	32,800	34,100	40,200	40,300	42,200	44,000	51,600	**
Female	24,900	19,300	22,700	26,100	32,200	32,700	28,900	30,300	**	**	**
Race	30,800	21,200	25,400	31,800	33,700	36,900	39,900	41,400	41,100	51,300	**
White	30,900	21,400	25,500	32,000	33,900	39,800	40,200	41,200	42,000	51,500	**
Black	25,700	**	20,400	23,300	29,400	**	**	**	**	**	**
Asian	28,700	19,800	25,800	37,900	29,200	34,400	**	**	**	**	**
Other[1]	29,900	23,400	21,800	**	**	**	**	**	**	**	**
Biologists											
Sex	29,500	21,000	25,000	30,600	32,200	34,900	38,900	40,000	36,600	**	**
Male	30,300	21,900	25,300	31,800	32,800	36,400	40,100	40,600	**	**	**
Female	23,900	19,100	22,100	25,000	27,500	32,700	28,800	**	**	**	**
Race	29,500	21,000	25,000	30,600	32,200	34,900	38,900	40,000	36,600	**	**
White	29,700	21,200	25,100	30,800	32,100	35,400	39,400	39,000	36,900	**	**
Black	23,800	**	20,000	23,200	29,400	**	**	**	**	**	**
Asian	28,000	18,100	25,300	38,000	**	**	**	**	**	**	**
Other[1]	22,000	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-32. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Number of Years of Professional Experience: 1982—continued

Field, Sex, and Race	Total	5 and fewer	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41 and over	Not reported
Biochemists											
Sex	$34,400	$17,400	$29,500	$36,500	$47,200	$40,800	$43,300	**	**	**	**
Male	36,000	17,000	30,300	37,000	47,100	**	43,500	**	**	**	**
Female	27,300	18,000	22,400	**	**	**	**	**	**	**	**
Race	34,400	17,400	29,500	36,500	47,200	40,800	43,300	**	**	**	**
White	34,800	16,900	29,600	36,600	46,800	**	43,500	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**
Asian	31,100	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Agricultural scientists											
Sex	31,100	21,400	24,400	30,800	32,500	40,000	35,400	38,800	**	**	**
Male	32,200	23,100	24,000	30,700	32,500	40,000	35,900	38,800	**	**	**
Female	21,700	20,200	27,200	**	**	**	**	**	**	**	**
Race	31,100	21,400	24,400	30,800	32,500	40,000	35,400	38,800	**	**	**
White	31,200	21,800	24,400	30,500	32,500	40,200	35,700	38,400	**	**	**
Black	27,200	**	**	**	**	**	**	**	**	**	**
Asian	24,500	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Medical scientists											
Sex	41,800	30,300	31,200	37,800	40,600	50,400	51,600	49,700	**	**	**
Male	48,900	30,700	32,800	41,800	50,000	54,900	54,700	51,300	**	**	**
Female	30,300	22,500	27,800	32,500	**	**	**	**	**	**	**
Race	41,800	30,300	31,200	37,800	40,600	50,400	51,600	49,700	**	**	**
White	42,200	29,[illegible]00	31,300	37,700	40,800	51,200	52,500	50,000	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**
Asian	30,700	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Psychologists											
Sex	30,500	22,900	26,600	30,700	33,800	38,400	39,200	40,500	**	**	**
Male	32,200	24,700	28,500	31,400	35,300	39,100	40,200	40,900	**	**	**
Female	28,700	20,900	24,500	29,600	29,800	35,900	29,800	**	**	**	**
Race	30,500	22,900	26,600	30,700	33,800	38,400	39,200	40,500	**	**	**
White	30,800	22,800	26,700	30,800	33,700	38,000	40,000	40,400	**	**	**
Black	28,500	**	21,300	26,700	**	**	**	**	**	**	**
Asian	30,300	**	**	**	**	**	**	**	**	**	**
Other[1]	30,200	**	**	**	**	**	**	**	**	**	**
Social scientists											
Sex	34,300	24,700	28,800	35,100	40,100	42,300	42,800	45,000	43,000	**	**
Male	36,500	26,600	29,800	37,600	40,400	42,500	44,600	48,200	42,900	**	**
Female	26,800	21,600	26,000	27,600	36,200	32,000	29,600	**	**	**	**
Race	34,300	24,700	28,800	35,100	40,100	42,300	42,800	45,000	43,000	**	**
White	34,800	25,100	28,700	35,700	39,000	42,500	43,100	47,900	44,600	**	**
Black	2[illegible],100	**	26,400	32,500	**	**	**	**	**	**	**
Asian	33,600	**	33,000	22,600	43,700	**	**	**	**	**	**
Other[1]	35,100	**	**	**	**	**	**	**	**	**	**
Economists											
Sex	40,000	28,700	31,900	41,200	40,900	45,200	42,500	51,600	50,800	**	**
Male	40,500	29,000	31,900	41,800	41,000	45,400	43,100	51,700	50,600	**	**
Female	32,400	26,100	31,800	35,700	**	**	**	**	**	**	**
Race	40,000	28,700	31,900	41,200	40,900	45,200	42,500	51,600	50,800	**	**
White	40,100	29,100	31,700	41,900	40,900	45,100	42,900	51,700	50,800	**	**
Black	30,300	**	**	**	**	**	**	**	**	**	**
Asian	40,500	**	41,500	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Sociologists / anthropologists											
Sex	29,400	22,700	24,300	29,700	38,500	34,700	47,000	44,200	**	**	**
Male	30,800	23,200	24,100	33,300	39,700	34,500	51,200	44,100	**	**	**
Female	26,300	20,500	24,700	23,000	**	**	**	**	**	**	**
Race	29,400	22,700	24,300	29,700	38,500	34,700	47,000	44,200	**	**	**
White	29,000	22,900	23,900	28,500	38,200	37,700	47,500	43,900	**	**	**
Black	29,400	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**
Other social scientists											
Sex	31,000	22,800	26,800	32,900	38,500	40,500	42,600	37,500	**	**	**
Male	34,300	27,000	28,100	36,300	39,500	41,000	46,200	41,300	**	**	**
Female	24,600	20,800	24,600	26,700	**	**	**	**	**	**	**
Race	31,000	22,800	26,800	32,900	38,500	40,500	42,600	37,500	**	**	**
White	31,700	23,000	27,000	33,900	36,600	40,600	42,700	41,200	**	**	**
Black	25,700	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**

**Fewer than 20 sample cases reported.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-33. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Highest Degree: 1982

Field, Sex, and Race	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Total, all fields								
Sex	$35,300	$39,200	$53,200	$36,200	$34,700	$29,300	**	$30,900
Male	35,900	40,300	53,200	37,200	35,300	29,500	**	30,900
Female	28,200	30,800	40,200	26,700	27,800	23,900	**	28,300
Race	35,300	39,200	53,200	36,200	34,700	29,300	**	30,900
White	35,500	39,000	54,200	36,600	35,000	29,400	**	30,900
Black	30,800	38,200	**	30,900	30,600	26,800	**	28,100
Asian	34,500	41,100	**	34,900	31,000	30,800	**	31,000
Other[1]	33,000	40,200	**	35,000	32,300	27,600	**	29,700
Physical scientists								
Sex	36,400	40,800	**	34,300	31,600	**	**	**
Male	37,500	41,300	**	35,500	33,000	**	**	**
Female	28,800	35,700	**	25,200	24,900	**	**	**
Race	36,400	40,800	**	34,300	31,600	**	**	**
White	36,900	40,800	**	35,200	32,300	**	**	**
Black	31,100	43,000	**	30,900	27,600	**	**	**
Asian	32,000	39,400	**	28,600	28,100	**	**	**
Other[1]	38,000	**	**	**	**	**	**	**
Chemists								
Sex	35,100	40,800	**	32,300	30,600	**	**	**
Male	36,000	41,500	**	34,300	31,800	**	**	**
Female	25,500	34,100	**	25,100	24,700	**	**	**
Race	35,100	40,800	**	32,300	30,600	**	**	**
White	35,500	40,700	**	33,900	31,000	**	**	**
Black	30,800	**	**	30,800	26,900	**	**	**
Asian	29,500	38,100	**	25,900	25,600	**	**	**
Other[1]	34,000	**	**	**	**	**	**	**
Physicists / astronomers								
Sex	40,700	41,200	**	39,100	40,800	**	**	**
Male	40,900	41,000	**	40,500	41,000	**	**	**
Female	37,000	42,200	**	**	**	**	**	**
Race	40,700	41,200	**	39,100	40,800	**	**	**
White	40,700	40,800	**	40,100	40,900	**	**	**
Black	**	**	**	**	**	**	**	**
Asian	46,800	46,200	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**
Other physical scientists								
Sex	37,200	40,900	**	36,100	32,100	**	**	**
Male	37,500	41,000	**	36,200	33,000	**	**	**
Female	32,300	**	**	**	27,100	**	**	**
Race	37,200	40,900	**	36,100	32,100	**	**	**
White	37,000	41,400	**	36,200	31,000	**	**	**
Black	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**
Mathematical scientists								
Sex	36,900	36,300	**	32,800	38,900	**	**	**
Male	37,800	39,000	**	33,800	40,600	**	**	**
Female	30,600	33,300	**	28,800	32,300	**	**	**
Race	36,900	36,300	**	32,800	38,900	**	**	**
White	37,200	36,200	**	33,500	39,600	**	**	**
Black	32,300	**	**	32,400	39,400	**	**	**
Asian	33,400	46,600	**	22,700	**	**	**	**
Other[1]	28,600	**	**	**	**	**	**	**
Mathematicians								
Sex	37,600	38,600	**	33,400	40,300	**	**	**
Male	38,400	39,200	**	34,000	40,900	**	**	**
Female	32,100	30,600	**	29,200	34,700	**	**	**
Race	37,600	38,600	**	33,400	40,300	**	**	**
White	37,900	38,400	**	34,100	40,300	**	**	**
Black	32,400	**	**	**	**	**	**	**
Asian	44,000	46,900	**	**	**	**	**	**
Other[1]	30,100	**	**	**	**	**	**	**
Statisticians								
Sex	34,200	37,500	**	30,700	29,800	**	**	**
Male	35,800	37,800	**	32,400	35,100	**	**	**
Female	29,700	**	**	27,900	28,200	**	**	**
Race	34,200	37,500	**	30,700	29,800	**	**	**
White	36,000	37,500	**	31,000	32,400	**	**	**
Black	**	**	**	**	**	**	**	**
Asian	30,500	**	**	29,000	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**
Computer specialists								
Sex	32,800	38,300	**	35,300	31,500	**	**	**
Male	34,100	38,100	**	36,000	32,600	**	**	**
Female	28,900	**	**	29,200	28,700	**	**	**
Race	32,800	38,300	**	36,300	31,500	**	**	**
White	32,900	38,500	**	35,400	31,900	**	**	**
Black	30,900	**	**	31,900	30,500	**	**	**
Asian	32,800	40,400	**	35,300	29,200	**	**	**
Other[1]	30,400	**	**	35,000	30,300	**	**	**

See Footnotes at end of Table

Table B-33. **Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Highest Degree: 1982**—continued

Field, Sex, and Race	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Environmental scientists								
Sex	$39,600	$38,800	**	$40,600	$38,200	**	**	**
Male	40,300	39,700	**	41,500	38,900	**	**	**
Female	30,600	35,200	**	30,600	26,500	**	**	**
Race	39,600	38,800	**	40,600	38,200	**	**	**
White	40,000	40,000	**	40,600	38,300	**	**	**
Black	**	**	**	**	**	**	**	**
Asian	31,400	30,400	**	36,800	**	**	**	**
Other[1]	37,500	**	**	**	**	**	**	**
Earth scientists								
Sex	40,600	39,700	**	40,900	40,500	**	**	**
Male	41,400	40,100	**	42,500	40,900	**	**	**
Female	30,600	35,000	**	30,600	29,500	**	**	**
Race	40,600	39,700	**	40,900	40,500	**	**	**
White	40,800	40,400	**	41,000	40,600	**	**	**
Black	**	**	**	**	**	**	**	**
Asian	32,900	**	**	40,500	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**
Oceanographers								
Sex	35,200	**	**	42,400	**	**	**	**
Male	37,200	**	**	42,500	**	**	**	**
Female	**	**	**	**	**	**	**	**
Race	35,200	**	**	42,400	**	**	**	**
White	35,400	**	**	42,500	**	**	**	**
Black	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**
Atmospheric scientists								
Sex	35,500	37,600	**	35,400	28,900	**	**	**
Male	35,800	39,300	**	36,000	28,300	**	**	**
Female	**	**	**	**	**	**	**	**
Race	35,500	37,600	**	35,400	28,900	**	**	**
White	35,700	39,300	**	35,400	28,600	**	**	**
Black	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**
Engineers								
Sex	36,100	45,200	36,700	39,600	35,700	29,300	**	30,900
Male	36,200	45,300	36,700	39,900	35,900	29,500	**	30,900
Female	29,900	44,500	**	31,400	28,900	23,900	**	28,300
Race	36,100	45,200	36,700	39,600	35,700	29,300	**	30,900
White	36,200	45,100	36,800	40,200	36,000	29,400	**	30,900
Black	31,700	**	**	36,200	31,300	26,800	**	28,100
Asian	35,400	45,500	**	35,700	32,600	30,600	**	31,000
Other[1]	34,200	46,000	**	36,500	33,900	27,600	**	29,700
Aeronautical / Astronautical								
Sex	39,900	46,500	**	41,500	38,200	33,600	**	35,900
Male	40,000	46,500	**	41,800	38,500	33,700	**	36,000
Female	30,100	**	**	**	27,400	**	**	**
Race	39,900	46,500	**	41,500	38,200	33,600	**	35,900
White	40,100	47,300	**	42,100	38,600	33,700	**	36,000
Black	35,200	**	**	**	31,800	**	**	**
Asian	38,200	45,300	**	36,900	31,300	**	**	**
Other[1]	39,800	**	**	**	**	**	**	**
Chemical								
Sex	40,600	49,400	**	43,100	39,100	**	**	31,600
Male	40,800	49,600	**	43,600	40,000	**	**	31,700
Female	30,700	**	**	32,200	30,400	**	**	**
Race	40,600	49,400	**	43,100	39,100	**	**	31,600
White	40,900	51,600	**	44,500	39,900	**	**	31,200
Black	30,700	**	**	**	30,900	**	**	**
Asian	35,400	46,000	**	33,900	30,300	**	**	**
Other[1]	36,100	**	**	**	**	**	**	**
Civil								
Sex	33,900	45,700	**	36,500	33,200	26,900	**	28,300
Male	34,100	45,700	**	36,600	33,400	26,800	**	28,300
Female	27,000	**	**	28,000	26,600	**	**	**
Race	33,900	45,700	**	36,500	33,200	26,900	**	28,300
White	34,100	46,300	**	36,900	33,600	27,100	**	28,400
Black	30,800	**	**	33,900	30,400	**	**	**
Asian	33,300	43,300	**	35,100	30,800	**	**	29,500
Other[1]	30,400	**	**	36,300	29,100	**	**	**
Electrical / Electronic								
Sex	36,600	50,500	38,900	40,300	36,100	30,200	**	31,300
Male	36,700	50,700	38,900	40,300	36,200	30,300	**	31,300
Female	30,300	**	**	33,800	28,800	**	**	30,100
Race	36,600	50,500	38,900	40,300	36,100	30,200	**	31,300
White	36,700	50,700	**	40,500	36,300	30,300	**	31,400
Black	32,500	**	**	40,700	32,200	**	**	30,100
Asian	36,700	49,400	**	37,500	[illegible]	**	**	29,200
Other[1]	35,200	**	**	36,500	36,800	**	**	**

See Footnotes at end of Table

Table B-33. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Highest Degree: 1982—continued

Field, Sex, and Race	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Industrial								
Sex	$32,200	$43,400	**	$37,000	$32,400	$28,400	**	$27,500
Male	32,500	43,400	**	37,200	32,700	28,800	**	27,700
Female	25,700	**	**	31,100	25,900	**	**	24,300
Race	32,200	43,400	**	37,000	32,400	28,400	**	27,500
White	32,400	**	**	37,400	32,700	28,500	**	27,600
Black	28,500	**	**	**	28,800	**	**	**
Asian	30,100	**	**	30,700	28,600	**	**	**
Other[1]	29,300	**	**	**	**	**	**	**
Materials								
Sex	37,500	43,000	**	40,100	36,000	**	**	32,800
Male	37,900	43,100	**	40,100	36,300	**	**	32,700
Female	28,700	**	**	**	27,600	**	**	**
Race	37,500	43,000	**	40,100	36,000	**	**	32,800
White	38,000	44,800	**	41,200	36,200	**	**	33,500
Black	**	**	**	**	**	**	**	**
Asian	34,000	38,500	**	34,100	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**
Mechanical								
Sex	36,600	42,200	**	40,000	36,500	30,100	**	32,100
Male	36,600	42,300	**	40,100	36,600	30,100	**	32,100
Female	30,000	**	**	30,900	28,200	**	**	35,200
Race	36,600	42,200	**	40,000	36,500	30,100	**	32,100
White	36,700	41,500	**	40,500	36,600	30,000	**	32,100
Black	33,700	**	**	36,100	33,300	**	**	**
Asian	36,000	45,100	**	36,000	34,100	**	**	**
Other[1]	33,900	**	**	**	33,600	**	**	**
Mining								
Sex	40,800	**	**	50,200	38,700	**	**	**
Male	40,700	**	**	50,200	40,000	**	**	**
Female	**	**	**	**	**	**	**	**
Race	40,800	**	**	50,200	38,700	**	**	**
White	40,800	**	**	51,100	40,000	**	**	**
Black	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**
Nuclear								
Sex	40,300	44,000	**	40,800	38,800	**	**	**
Male	40,400	**	**	40,900	39,200	**	**	**
Female	**	**	**	**	**	**	**	**
Race	40,300	44,000	**	40,800	38,800	**	**	**
White	40,500	**	**	40,900	39,400	**	**	**
Black	**	**	**	**	**	**	**	**
Asian	36,500	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**
Petroleum								
Sex	50,700	**	**	53,000	50,400	**	**	42,100
Male	51,200	**	**	53,300	51,100	**	**	42,100
Female	40,100	**	**	**	40,100	**	**	**
Race	50,700	**	**	53,000	50,400	**	**	42,100
White	50,900	**	**	55,000	50,400	**	**	**
Black	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**
Other								
Sex	35,000	41,700	**	36,000	35,000	28,700	**	30,900
Male	35,100	41,400	**	36,400	35,200	28,800	**	31,000
Female	30,700	**	**	30,600	30,900	25,200	**	28,300
Race	35,000	41,700	**	36,000	35,000	28,700	**	30,900
White	35,100	41,100	**	36,600	35,100	28,800	**	31,100
Black	31,000	**	**	35,400	31,300	24,800	**	28,200
Asian	34,100	45,200	**	33,500	33,600	**	**	**
Other[1]	36,000	**	**	35,900	35,200	**	**	29,000
Life scientists								
Sex	30,800	36,400	60,400	26,900	26,600	**	**	**
Male	32,000	37,700	60,400	27,700	27,700	**	**	**
Female	24,900	29,100	61,000	24,200	22,200	**	**	**
Race	30,800	36,400	60,400	26,900	26,600	**	**	**
White	30,900	36,700	60,600	27,100	26,900	**	**	**
Black	25,700	37,400	**	25,000	21,300	**	**	**
Asian	28,700	34,500	**	22,800	22,000	**	**	**
Other[1]	29,900	**	**	32,700	21,700	**	**	**
Biologists								
Sex	29,500	36,200	**	26,400	25,300	**	**	**
Male	30,300	37,400	**	26,900	25,800	**	**	**
Female	23,900	28,500	**	24,400	21,700	**	**	**
Race	29,500	36,200	**	26,400	25,300	**	**	**
White	29,700	36,500	**	26,500	25,500	**	**	**
Black	23,800	**	**	23,000	21,200	**	**	**
Asian	28,000	34,400	**	26,000	21,000	**	**	**
Other[1]	22,000	**	**	**	21,000	**	**	**

See Footnotes at end of Table

Table B-33. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Highest Degree: 1982—continued

Field, Sex, and Race	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Biochemists								
Sex	$34,400	$35,800	**	$30,800	**	**	**	**
Male	36,000	37,800	**	35,100	**	**	**	**
Female	27,300	27,300	**	25,000	**	**	**	**
Race	34,400	35,800	**	30,800	**	**	**	**
White	34,800	35,800	**	34,500	**	**	**	**
Black	**	**	**	**	**	**	**	**
Asian	31,100	33,900	**	**	**	**	**	**
Other¹	**	**	**	**	**	**	**	**
Agricultural scientists								
Sex	31,100	36,300	**	26,700	30,800	**	**	**
Male	32,200	36,000	**	26,800	30,900	**	**	**
Female	21,700	**	**	24,300	22,000	**	**	**
Race	31,100	36,300	**	26,700	30,800	**	**	**
White	31,200	36,300	**	26,600	30,700	**	**	**
Black	27,200	**	**	**	**	**	**	**
Asian	24,500	45,200	**	**	**	**	**	**
Other¹	**	**	**	**	**	**	**	**
Medical scientists								
Sex	41,800	37,600	61,400	46,200	26,800	**	**	**
Male	46,900	40,300	62,000	61,500	30,200	**	**	**
Female	30,300	31,900	**	23,300	24,400	**	**	**
Race	41,800	37,600	61,400	46,200	26,800	**	**	**
White	42,200	37,700	61,600	47,700	27,800	**	**	**
Black	**	**	**	**	**	**	**	**
Asian	30,700	34,700	**	**	**	**	**	**
Other¹	**	**	**	**	**	**	**	**
Psychologists								
Sex	30,500	33,100	**	26,300	30,500	**	**	**
Male	32,200	34,600	**	28,800	31,800	**	**	**
Female	26,700	30,200	**	23,800	27,200	**	**	**
Race	30,500	33,100	**	26,300	30,500	**	**	**
White	30,600	33,100	**	26,400	30,700	**	**	**
Black	26,500	35,200	**	24,800	**	**	**	**
Asian	30,300	32,000	**	30,200	**	**	**	**
Other¹	30,200	**	**	**	**	**	**	**
Social scientists								
Sex	34,300	37,800	61,300	29,700	32,300	**	**	**
Male	36,500	40,200	61,500	32,700	35,100	**	**	**
Female	28,800	31,100	**	24,000	23,400	**	**	**
Race	34,300	37,800	61,300	29,700	32,300	**	**	**
White	34,800	38,100	61,600	30,000	32,800	**	**	**
Black	29,100	33,900	**	25,900	29,500	**	**	**
Asian	33,600	34,300	**	45,900	**	**	**	**
Other¹	35,100	35,200	**	**	**	**	**	**
Economists								
Sex	40,000	41,000	**	37,700	36,700	**	**	**
Male	40,500	41,200	**	40,500	36,800	**	**	**
Female	32,400	34,900	**	30,300	29,700	**	**	**
Race	40,000	41,000	**	37,700	36,700	**	**	**
White	40,100	41,200	**	37,900	36,800	**	**	**
Black	30,300	**	**	**	**	**	**	**
Asian	40,500	28,900	**	48,800	**	**	**	**
Other¹	**	**	**	**	**	**	**	**
Sociologists / anthropologists								
Sex	29,400	32,300	**	24,500	27,700	**	**	**
Male	30,800	33,800	**	25,100	30,400	**	**	**
Female	26,300	29,200	**	22,800	20,900	**	**	**
Race	29,400	32,300	**	24,500	27,700	**	**	**
White	29,000	30,900	**	24,000	25,000	**	**	**
Black	29,400	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**
Other¹	**	**	**	**	**	**	**	**
Other social scientists								
Sex	31,000	37,500	**	25,800	30,300	**	**	**
Male	34,300	40,400	**	28,100	30,800	**	**	**
Female	24,600	32,300	**	23,100	23,300	**	**	**
Race	31,000	37,500	**	25,800	30,300	**	**	**
White	31,700	38,100	**	25,900	30,600	**	**	**
Black	25,700	**	**	25,500	**	**	**	**
Asian	**	**	**	**	**	**	**	**
Other¹	**	**	**	**	**	**	**	**

**Fewer than 20 sample cases reported.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-34. **Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Age: 1982**

Field, Sex, and Race	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Total, all fields												
Sex	$35,300	$27,600	$30,900	$35,000	$38,200	$40,200	$40,400	$40,600	$40,100	$40,400	$40,100	$32,900
Male	35,900	28,100	31,300	35,300	38,900	40,400	40,700	40,800	40,200	40,500	40,300	37,600
Female	29,200	25,800	27,100	29,600	30,500	31,900	30,500	32,700	32,700	37,200	**	**
Race	35,300	27,600	30,900	35,000	38,200	40,200	40,400	40,600	40,100	40,400	40,100	32,900
White	35,500	27,700	30,900	35,000	38,700	40,300	40,500	40,700	40,100	40,600	40,200	34,800
Black	30,800	26,200	30,400	32,400	32,000	36,200	37,100	32,500	35,600	**	**	**
Asian	34,500	28,200	31,600	35,100	36,000	37,000	38,900	40,100	40,400	**	**	**
Other[1]	33,000	25,800	31,500	35,300	36,700	35,800	37,200	37,500	35,400	**	**	**
Physical scientists												
Sex	36,400	24,200	30,200	34,500	36,600	40,300	40,900	46,700	40,900	**	**	**
Male	37,500	24,800	30,600	35,000	39,400	40,800	41,600	47,600	42,400	**	**	**
Female	26,900	22,300	27,200	28,500	23,100	27,400	28,900	31,700	**	**	**	**
Race	36,400	24,200	30,200	34,500	36,600	40,300	40,900	46,700	40,900	**	**	**
White	36,900	24,200	30,600	35,000	40,000	40,400	40,700	46,600	40,800	**	**	**
Black	31,200	26,400	25,800	24,900	33,600	36,000	42,100	**	**	**	**	**
Asian	32,000	**	24,300	29,300	29,700	37,800	47,800	**	**	**	**	**
Other[1]	39,000	**	**	**	**	**	**	**	**	**	**	**
Chemists												
Sex	35,100	23,700	26,100	33,300	36,800	38,300	40,500	44,400	41,000	**	**	**
Male	36,000	24,200	26,600	33,900	37,700	40,100	41,000	44,800	42,600	**	**	**
Female	25,500	22,400	24,900	28,100	22,800	25,800	28,300	30,900	**	**	**	**
Race	35,100	23,700	26,100	33,300	36,800	38,300	40,500	44,400	41,000	**	**	**
White	35,500	23,800	27,000	34,100	38,500	38,700	40,300	44,300	40,900	**	**	**
Black	30,600	26,400	25,000	22,900	**	**	**	**	**	**	**	**
Asian	29,500	**	24,100	27,600	29,500	36,700	**	**	**	**	**	**
Other[1]	34,000	**	**	**	**	**	**	**	**	**	**	**
Physicists / astronomers												
Sex	40,700	26,800	31,600	38,300	42,200	45,100	45,000	51,000	**	**	**	**
Male	40,900	**	31,600	38,600	42,300	45,100	45,000	51,200	**	**	**	**
Female	37,000	**	**	**	**	**	**	**	**	**	**	**
Race	40,700	26,800	31,600	38,300	42,200	45,100	45,000	51,000	**	**	**	**
White	40,700	**	32,000	38,500	42,500	45,100	44,400	52,000	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	45,600	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Other physical scientists												
Sex	37,200	25,300	35,900	35,600	41,000	40,000	37,100	47,900	**	**	**	**
Male	37,500	25,200	36,100	35,600	41,300	39,800	38,100	48,100	**	**	**	**
Female	32,300	**	**	**	**	**	**	**	**	**	**	**
Race	37,200	25,300	35,900	35,600	41,000	40,000	37,100	47,900	**	**	**	**
White	37,000	25,200	36,100	35,700	41,100	40,000	37,000	48,400	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Mathematical scientists												
Sex	36,900	28,000	30,500	36,200	40,200	43,700	42,600	40,200	39,500	**	**	**
Male	37,800	28,200	30,800	36,600	40,200	44,400	42,800	40,400	38,400	**	**	**
Female	30,600	27,800	27,700	32,800	40,300	**	**	**	**	**	**	**
Race	36,900	28,000	30,500	36,200	40,200	43,700	42,600	40,200	39,500	**	**	**
White	37,200	28,100	30,500	36,400	40,500	43,900	42,200	40,800	40,200	**	**	**
Black	32,300	**	**	**	**	**	**	**	**	**	**	**
Asian	33,400	**	**	**	**	48,000	**	**	**	**	**	**
Other[1]	26,600	**	**	**	**	**	**	**	**	**	**	**
Mathematicians												
Sex	37,900	25,900	29,900	36,200	40,600	44,200	42,600	40,000	39,800	**	**	**
Male	38,400	25,100	30,300	36,200	40,500	44,800	42,800	40,200	38,200	**	**	**
Female	32,100	26,000	25,000	36,000	42,400	**	**	**	**	**	**	**
Race	37,600	25,900	29,900	36,200	40,600	44,200	42,600	40,000	39,800	**	**	**
White	37,900	27,300	29,600	36,300	40,800	44,400	42,100	40,600	40,200	**	**	**
Black	32,400	**	**	**	**	**	**	**	**	**	**	**
Asian	44,000	**	**	**	**	**	**	**	**	**	**	**
Other[1]	30,100	**	**	**	**	**	**	**	**	**	**	**
Statisticians												
Sex	34,200	28,400	33,000	37,000	34,500	36,700	**	**	**	**	**	**
Male	35,800	30,200	33,100	39,300	34,800	37,000	**	**	**	**	**	**
Female	28,700	28,100	**	**	**	**	**	**	**	**	**	**
Race	34,200	28,400	33,000	37,000	34,500	36,700	**	**	**	**	**	**
White	35,000	28,600	33,100	38,100	34,800	**	**	**	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	30,300	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Computer specialists												
Sex	32,800	28,200	31,500	35,300	36,300	37,600	37,000	34,400	33,900	**	**	**
Male	34,100	29,000	32,500	35,600	36,700	38,100	37,500	34,800	35,600	**	**	**
Female	26,900	26,900	28,200	32,500	32,500	33,400	27,600	**	**	**	**	**
Race	32,600	28,200	31,500	35,300	36,300	37,600	37,000	34,400	33,900	**	**	**
White	32,900	28,500	31,600	35,200	36,600	38,200	37,000	34,900	33,900	**	**	**
Black	30,900	[illegible]5,600	30,700	32,000	35,700	**	**	**	**	**	**	**
Asian	32,800	[illegible]6,600	30,900	38,900	34,900	33,100	**	**	**	**	**	**
Other[1]	30,400	**	**	34,400	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-34. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Age: 1982—continued

Field, Sex, and Race	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Environmental scientists												
Sex	$39,800	$30,400	$32,700	$37,700	$38,700	$50,500	$47,500	$54,300	$46,700	**	**	**
Male	40,300	30,800	32,600	38,400	38,200	50,600	47,600	54,800	47,200	**	**	**
Female	30,800	28,100	36,000	25,300	**	**	**	**	**	**	**	**
Race	39,800	30,400	32,700	37,700	38,700	50,500	47,500	54,300	46,700	**	**	**
White	40,000	30,400	32,600	37,600	40,100	51,400	47,900	54,500	46,000	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	31,400	**	**	**	**	**	**	**	**	**	**	**
Other[1]	37,500	**	**	**	**	**	**	**	**	**	**	**
Earth scientists												
Sex	40,600	31,400	33,500	40,200	38,300	52,200	47,700	56,400	50,400	**	**	**
Male	41,400	35,000	33,500	40,500	37,800	52,400	47,700	56,800	50,600	**	**	**
Female	30,600	27,700	33,300	32,200	**	**	**	**	**	**	**	**
Race	40,600	31,400	33,500	40,200	38,300	52,200	47,700	56,400	50,400	**	**	**
White	40,800	31,300	33,400	40,100	40,300	52,500	48,200	56,500	50,400	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	32,900	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Oceanographers												
Sex	35,200	**	**	**	**	**	**	**	**	**	**	**
Male	37,200	**	**	**	**	**	**	**	**	**	**	**
Female	**	**	**	**	**	**	**	**	**	**	**	**
Race	35,200	**	**	**	**	**	**	**	**	**	**	**
White	35,400	**	**	**	**	**	**	**	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Atmospheric scientists												
Sex	35,500	21,300	31,200	33,300	40,100	**	**	**	**	**	**	**
Male	35,800	**	30,200	33,300	40,100	**	**	**	**	**	**	**
Female	**	**	**	**	**	**	**	**	**	**	**	**
Race	35,500	21,300	31,200	33,300	40,100	**	**	**	**	**	**	**
White	35,700	**	31,200	33,300	40,400	**	**	**	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Engineers												
Sex	36,100	28,600	32,300	35,900	39,800	40,400	40,600	40,400	39,100	39,300	33,800	34,500
Male	36,200	28,600	32,300	35,900	39,900	40,400	40,600	40,400	39,200	39,400	33,800	34,800
Female	29,900	28,000	31,000	30,700	33,300	34,500	30,800	36,500	**	**	**	**
Race	36,100	28,600	32,300	35,900	39,800	40,400	40,600	40,400	39,100	39,300	33,800	34,500
White	36,200	28,600	32,300	35,900	40,100	40,500	40,700	40,500	39,200	39,300	35,100	34,800
Black	31,700	28,000	30,800	33,200	33,100	37,400	37,900	32,600	35,300	**	**	**
Asian	35,400	26,900	33,000	35,600	36,600	39,400	38,000	37,400	41,500	**	**	**
Other[1]	34,200	26,100	32,200	35,400	40,100	38,500	39,300	37,700	**	**	**	**
Aeronautical / Astronautical												
Sex	39,900	27,800	32,200	38,100	40,700	41,000	42,900	41,500	40,600	**	**	**
Male	40,000	27,900	32,300	38,200	40,800	41,000	42,900	41,500	40,600	**	**	**
Female	30,100	26,700	**	**	**	**	**	**	**	**	**	**
Race	39,900	27,800	32,200	38,100	40,700	41,000	42,900	41,500	40,600	**	**	**
White	40,100	27,800	32,500	38,300	40,800	41,200	42,800	42,000	40,600	**	**	**
Black	35,200	**	**	**	**	**	**	**	**	**	**	**
Asian	38,200	**	**	36,500	**	**	**	**	**	**	**	**
Other[1]	39,800	**	**	**	**	**	**	**	**	**	**	**
Chemical												
Sex	40,600	30,900	35,900	40,800	46,300	48,800	47,300	51,700	46,100	**	**	**
Male	40,800	31,000	35,900	41,000	46,300	48,800	47,500	51,700	46,100	**	**	**
Female	30,700	30,200	34,300	30,600	**	**	**	**	**	**	**	**
Race	40,600	30,900	35,900	40,800	46,300	48,800	47,300	51,700	46,100	**	**	**
White	40,900	31,100	36,400	41,400	47,400	49,000	48,100	51,800	46,400	**	**	**
Black	30,700	**	**	**	**	**	**	**	**	**	**	**
Asian	35,400	30,000	32,500	39,700	40,300	**	**	**	**	**	**	**
Other[1]	36,100	**	**	**	**	**	**	**	**	**	**	**
Civil												
Sex	33,900	26,600	30,200	33,000	36,500	37,400	37,900	37,400	40,200	36,800	33,800	**
Male	34,100	26,600	30,200	33,000	36,600	37,500	38,300	37,500	40,200	36,800	33,800	**
Female	27,000	26,200	28,600	**	**	**	**	**	**	**	**	**
Race	33,900	26,600	30,200	33,000	36,500	37,400	37,900	37,400	40,200	36,800	33,800	**
White	34,100	26,600	30,300	33,200	36,800	37,800	39,000	38,000	40,200	38,900	35,100	**
Black	30,800	**	27,700	30,800	35,100	**	**	**	**	**	**	**
Asian	33,300	26,800	30,200	32,300	34,400	35,900	35,100	31,600	**	**	**	**
Other[1]	30,400	**	28,100	28,500	**	**	**	**	**	**	**	**
Electrical / Electronic												
Sex	36,600	29,000	33,000	36,500	40,400	40,800	40,700	41,300	39,400	40,300	**	**
Male	36,700	29,100	33,000	36,500	40,400	40,800	40,700	41,300	39,400	40,300	**	**
Female	30,300	27,800	31,700	37,100	**	**	**	**	**	**	**	**
Race	36,600	29,000	33,000	36,500	40,400	40,800	40,700	41,300	39,400	40,300	**	**
White	36,700	29,000	33,000	36,500	40,600	40,800	40,600	41,800	39,500	40,300	**	**
Black	32,500	28,700	32,100	32,500	37,700	40,200	42,400	26,400	**	**	**	**
Asian	36,700	29,500	35,400	37,400	40,100	43,100	40,500	35,200	**	**	**	**
Other[1]	35,200	**	30,600	35,800	38,300	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-34. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Age: 1982—continued

Field, Sex, and Race	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Industrial												
Sex	$32,200	$26,200	$30,000	$31,600	$35,600	$37,900	$36,500	$36,300	$30,800	**	**	**
Male	32,500	26,300	30,100	31,800	35,600	37,900	36,500	36,400	30,800	**	**	**
Female	25,700	25,900	25,100	25,300	**	**	**	**	**	**	**	**
Race	32,200	26,200	30,000	31,600	35,600	37,900	36,500	36,300	30,800	**	**	**
White	32,400	26,200	30,000	31,900	35,800	37,800	36,600	36,300	30,800	**	**	**
Black	28,500	26,600	**	**	**	**	**	**	**	**	**	**
Asian	30,100	**	**	26,700	**	**	**	**	**	**	**	**
Other[1]	29,300	**	**	**	**	**	**	**	**	**	**	**
Materials												
Sex	37,500	28,300	32,800	37,500	41,700	40,000	45,700	41,700	36,900	**	**	**
Male	37,900	28,300	32,800	37,600	41,700	40,000	45,700	41,900	40,100	**	**	**
Female	28,700	26,100	**	**	**	**	**	**	**	**	**	**
Race	37,500	28,300	32,800	37,500	41,700	40,000	45,700	41,700	36,900	**	**	**
White	38,000	28,700	32,700	38,400	41,900	40,100	45,800	41,800	36,900	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	34,000	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Mechanical												
Sex	36,600	28,400	32,200	36,300	40,200	41,100	40,900	40,100	38,700	38,700	**	**
Male	36,600	28,400	32,200	36,300	40,200	41,000	41,000	40,000	38,700	38,800	**	**
Female	30,000	27,100	29,100	**	**	**	**	**	**	**	**	**
Race	36,600	28,400	32,200	36,300	40,200	41,100	40,900	40,100	38,700	38,700	**	**
White	36,700	28,400	32,100	30,400	40,500	41,400	41,000	40,000	38,600	38,600	**	**
Black	33,700	27,700	33,400	36,100	**	**	**	**	**	**	**	**
Asian	36,000	28,900	35,000	35,200	36,100	40,500	42,800	39,600	**	**	**	**
Other[1]	33,900	**	31,500	**	**	**	**	**	**	**	**	**
Mining												
Sex	40,800	31,900	41,400	41,000	**	**	51,800	**	**	**	**	**
Male	40,700	32,300	41,400	42,100	**	**	51,800	**	**	**	**	**
Female	**	**	**	**	**	**	**	**	**	**	**	**
Race	40,800	31,900	41,400	41,000	**	**	51,800	**	**	**	**	**
White	40,800	31,900	41,500	42,000	**	**	51,800	**	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Nuclear												
Sex	40,300	30,800	35,700	40,700	45,300	45,600	**	**	**	**	**	**
Male	40,400	30,800	35,800	40,800	45,300	45,700	**	**	**	**	**	**
Female	**	**	**	**	**	**	**	**	**	**	**	**
Race	40,300	30,800	35,700	40,700	45,300	45,600	**	**	**	**	**	**
White	40,500	30,800	35,900	42,300	46,100	45,600	**	**	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	35,500	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Petroleum												
Sex	50,700	39,100	46,800	56,100	60,900	53,600	63,600	60,900	56,100	**	**	**
Male	51,200	39,500	47,100	57,900	61,000	53,600	63,600	60,900	56,300	**	**	**
Female	40,100	36,500	**	**	**	**	**	**	**	**	**	**
Race	50,700	39,100	46,800	56,100	60,900	53,600	63,600	60,900	56,100	**	**	**
White	50,900	39,200	47,700	59,200	**	50,500	63,900	61,200	56,600	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Other												
Sex	35,000	28,200	32,100	35,300	36,800	38,600	37,500	39,300	35,900	38,100	**	**
Male	35,100	28,100	32,100	35,400	37,000	38,700	37,600	40,000	35,900	38,200	**	**
Female	30,700	26,900	31,800	30,600	33,000	35,500	32,300	**	**	**	**	**
Race	35,000	28,200	32,100	35,300	36,800	38,600	37,500	39,300	35,900	38,100	**	**
White	35,100	28,200	32,200	[illegible]	37,100	38,700	37,700	39,500	35,900	38,200	**	**
Black	31,000	29,100	30,800	34,300	20,700	40,600	**	**	**	**	**	**
Asian	34,100	31,300	30,300	36,000	36,200	37,000	35,700	**	**	**	**	**
Other[1]	35,000	23,000	32,700	35,400	**	**	**	**	**	**	**	**
Life scientists												
Sex	30,800	19,900	25,000	29,400	34,200	37,500	38,300	40,600	40,400	53,700	**	**
Male	32,000	20,100	25,300	30,100	35,300	38,800	39,600	41,700	41,000	54,400	**	**
Female	24,900	19,400	21,500	25,300	31,000	32,800	30,200	35,900	28,700	**	**	**
Race	30,800	19,900	25,000	29,400	34,200	37,500	38,300	40,600	40,400	53,700	**	**
White	30,900	20,000	25,100	29,900	34,600	38,700	38,800	40,700	40,500	54,200	**	**
Black	25,700	**	17,700	25,000	23,700	**	**	**	**	**	**	**
Asian	28,700	**	26,600	27,800	34,100	34,500	24,500	**	**	**	**	**
Other[1]	29,900	**	22,800	**	**	**	**	**	**	**	**	**
Biologists												
Sex	29,500	19,800	24,800	28,600	32,200	35,100	38,300	38,900	36,000	**	**	**
Male	30,300	20,000	25,100	29,400	32,700	36,600	39,200	40,500	37,200	**	**	**
Female	23,900	19,300	22,600	24,500	28,900	32,100	26,500	35,700	**	**	**	**
Race	29,500	19,800	24,800	28,600	32,200	35,100	38,300	38,900	36,000	**	**	**
White	29,700	19,900	25,100	28,800	32,600	35,200	38,700	39,000	36,100	**	**	**
Black	23,800	**	**	22,700	**	**	**	**	**	**	**	**
Asian	28,000	**	27,000	35,100	**	**	**	**	**	**	**	**
Other[1]	22,000	**	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-34. Median Annual Salary of Employed Scientists and Engineers by Field, Sex, Race, and Age: 1982—continued

Field, Sex, and Race	Total	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over	Not reported
Biochemists												
Sex	$34,400	$14,000	$22,100	$31,700	$40,500	$45,500	$35,000	$50,200	**	**	**	**
Male	36,000	**	27,400	32,800	42,500	42,800	39,500	51,300	**	**	**	**
Female	27,300	**	17,000	**	**	**	**	**	**	**	**	**
Race	34,400	14,000	22,100	31,700	40,500	45,500	35,000	50,200	**	**	**	**
White	34,800	14,100	22,400	32,400	44,100	48,900	34,100	50,700	**	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	31,100	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Agricultural scientists												
Sex	31,100	20,400	24,600	28,200	35,100	35,300	36,400	34,000	42,600	**	**	**
Male	32,200	20,800	25,200	28,200	35,500	35,400	36,700	34,000	42,600	**	**	**
Female	21,700	18,400	20,500	**	**	**	**	**	**	**	**	**
Race	31,100	20,400	24,600	28,200	35,100	35,300	36,400	34,000	42,600	**	**	**
White	31,200	20,300	24,200	28,400	34,900	35,400	37,000	33,800	42,700	**	**	**
Black	27,200	**	**	**	**	**	**	**	**	**	**	**
Asian	24,500	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Medical scientists												
Sex	41,800	22,900	29,200	32,300	36,900	48,200	55,800	49,600	56,200	**	**	**
Male	46,300	**	31,800	32,600	42,100	51,900	64,200	52,500	58,100	**	**	**
Female	30,300	**	20,700	28,800	32,400	**	**	**	**	**	**	**
Race	41,800	22,900	29,200	32,300	36,900	48,200	55,800	49,600	55,200	**	**	**
White	42,200	**	28,400	32,300	36,900	50,400	56,900	50,200	55,400	**	**	**
Black	**	**	**	**	**	**	**	**	**	**	**	**
Asian	30,700	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Psychologists												
Sex	30,500	22,300	26,000	29,400	34,000	36,000	35,800	40,000	39,700	**	**	**
Male	32,200	22,700	26,400	30,200	35,500	36,900	39,700	40,800	40,200	**	**	**
Female	26,700	21,400	24,200	25,800	30,200	34,600	25,700	32,400	**	**	**	**
Race	30,500	22,300	26,000	29,400	34,000	36,000	35,800	40,000	39,700	**	**	**
White	30,600	22,200	25,800	29,400	34,300	35,900	[illegible]	40,100	39,300	**	**	**
Black	26,500	**	28,800	**	**	**	**	**	**	**	**	**
Asian	30,300	**	**	**	**	**	**	**	**	**	**	**
Other[1]	30,200	**	**	**	**	**	**	**	**	**	**	**
Social scientists												
Sex	34,300	23,800	27,900	32,900	37,500	40,900	40,700	43,100	50,300	40,900	**	**
Male	36,500	25,700	29,100	33,900	40,100	42,600	40,900	45,200	51,500	42,400	**	**
Female	26,800	21,100	24,900	28,300	28,400	24,300	36,900	32,000	**	**	**	**
Race	34,300	23,800	27,900	32,900	37,500	40,900	40,700	43,100	50,300	40,900	**	**
White	34,800	24,100	28,200	32,500	37,600	42,300	41,400	43,000	50,900	44,300	**	**
Black	29,100	**	22,200	**	**	**	**	**	**	**	**	**
Asian	33,600	**	25,600	30,800	43,700	**	**	**	**	**	**	**
Other[1]	35,100	**	**	**	**	**	**	**	**	**	**	**
Economists												
Sex	40,000	26,000	33,800	37,300	40,700	45,400	42,300	44,900	51,400	42,500	**	**
Male	40,500	26,400	34,300	37,200	40,900	[illegible]	42,500	47,000	52,400	42,400	**	**
Female	32,400	23,800	32,300	38,300	**	**	**	**	**	**	**	**
Race	40,000	26,000	33,800	37,300	40,700	45,400	42,300	44,900	51,400	42,500	**	**
White	40,100	25,600	34,700	37,100	40,600	45,600	42,500	44,300	51,500	46,200	**	**
Black	30,300	**	**	**	**	**	**	**	**	**	**	**
Asian	40,500	**	**	**	43,200	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Sociologists / anthropologists												
Sex	29,400	20,200	22,500	28,400	37,000	30,300	40,400	44,400	**	**	**	**
Male	30,800	20,600	22,700	28,400	37,800	35,300	38,300	50,100	**	**	**	**
Female	26,300	**	22,300	28,300	29,500	**	**	**	**	**	**	**
Race	29,400	20,200	22,500	28,400	37,000	30,300	40,400	44,400	**	**	**	**
White	29,000	20,200	22,500	27,700	33,600	30,300	41,100	42,900	**	**	**	**
Black	29,400	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**
Other social scientists												
Sex	31,000	23,400	25,600	32,200	33,800	35,200	40,400	38,900	50,400	**	**	**
Male	34,300	27,300	25,700	33,400	39,700	40,100	42,100	42,300	51,900	**	**	**
Female	24,600	19,800	25,400	25,500	27,000	**	**	**	**	**	**	**
Race	31,000	23,400	25,600	32,200	33,800	35,200	40,400	38,900	50,400	**	**	**
White	31,700	24,400	25,600	30,800	35,600	40,500	40,700	41,200	51,500	**	**	**
Black	25,700	**	**	**	**	**	**	**	**	**	**	**
Asian	**	**	**	**	**	**	**	**	**	**	**	**
Other[1]	**	**	**	**	**	**	**	**	**	**	**	**

**Fewer than 20 sample cases reported.

[1] Not Reported are included in Other.

Source: National Science Foundation.

Table B-35. Median Annual Salary of Female Employed Scientists and Engineers by Field, Type of Employer, and Primary Work Activity: 1982

Field and Type of Employer	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Total, all fields	**$28,200**	**$28,100**	**$25,600**	**$27,700**	**$29,000**	**$31,600**	**$35,600**	**$29,600**	**$28,200**	**$30,600**	**$26,200**	**$27,400**
Business / industry	29,500	29,900	29,000	30,400	29,700	33,400	36,100	30,800	25,600	31,500	27,100	28,100
4-yr coll./ univ.	27,500	23,800	24,600	21,900	**	27,000	**	28,900	29,000	**	**	18,600
2-yr college	28,300	**	**	**	**	**	**	**	25,700	**	**	**
Nonprofit organizats	25,000	26,500	26,000	26,900	**	27,500	**	**	**	**	**	22,300
Federal government	30,300	28,500	26,500	27,000	30,200	34,000	36,500	28,900	**	**	27,200	32,100
State government	22,700	23,000	**	22,200	**	22,500	**	20,800	**	**	19,000	24,300
Other government	19,600	17,200	**	**	15,100	24,200	**	**	**	**	**	23,200
Other[2]	25,100	25,100	**	23,400	**	26,500	**	25,800	22,900	**	**	25,700
Physical scientists	**26,900**	**28,500**	**23,700**	**29,300**	**27,700**	**30,900**	**35,000**	**30,400**	**26,500**	**	**23,000**	**29,800**
Business / industry	28,500	29,600	**	29,700	27,800	31,600	33,600	30,900	**	**	23,000	29,900
4-yr coll./ univ.	22,900	17,200	**	**	**	**	**	**	29,900	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	30,300	28,800	**	29,800	**	**	**	**	**	**	**	**
State government	20,800	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Chemists	**25,500**	**28,200**	**23,300**	**29,000**	**27,900**	**30,900**	**	**30,400**	**22,600**	**	**23,100**	**29,500**
Business / industry	27,700	29,300	**	29,400	28,000	33,800	**	36,100	**	**	23,000	30,000
4-yr coll./ univ.	21,100	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	29,900	28,600	**	**	**	**	**	**	**	**	**	**
State government	21,000	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Physicists / astronomers	**37,000**	**	**	**	**	**	**	**	**	**	**	**
Business / industry	**	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Other physical scientists	**32,300**	**32,200**	**	**	**	**	**	**	**	**	**	**
Business / industry	**	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Mathematical scientists	**30,800**	**30,300**	**	**27,400**	**32,000**	**41,100**	**42,300**	**40,300**	**28,800**	**	**	**28,800**
Business / industry	34,400	**	**	**	**	40,800	**	40,100	**	**	**	28,700
4-yr coll./ univ.	29,200	**	**	**	**	**	**	**	29,200	**	**	**
2-yr college	28,300	**	**	**	**	**	**	**	28,200	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	32,400	**	**	**	**	**	**	**	**	**	**	31,800
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Mathematicians	**32,100**	**30,200**	**	**	**	**41,700**	**	**39,000**	**28,300**	**	**	**30,000**
Business / industry	40,300	**	**	**	**	41,600	**	40,100	**	**	**	**
4-yr coll./ univ.	28,800	**	**	**	**	**	**	**	28,300	**	**	**
2-yr college	28,300	**	**	**	**	**	**	**	28,200	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	32,900	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Statisticians	**28,700**	**	**	**	**	**	**	**	**	**	**	**28,300**
Business / industry	28,300	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	32,000	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Computer specialists	**28,900**	**29,500**	**	**	**29,300**	**36,200**	**38,800**	**35,400**	**26,600**	**32,800**	**25,300**	**28,200**
Business / industry	29,100	30,100	**	**	30,000	36,700	40,100	35,800	**	32,700	**	27,700
4-yr coll./ univ.	25,200	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	28,700	**	**	**	**	**	**	**	**	**	**	**
Federal government	32,400	32,100	**	**	**	**	**	**	**	**	**	32,900
State government	25,600	**	**	**	**	**	**	**	**	**	**	26,600
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-35. Median Annual Salary of Female Employed Scientists and Engineers by Field, Type of Employer, and Primary Work Activity: 1982—continued

Field and Type of Employer	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Environmental scientists	$30,600	$30,600	**	$30,300	$31,600	$40,300	**	**	**	**	**	$34,100
Business / industry	31,200	30,800	**	30,800	32,000	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	31,000	31,700	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Earth scientists	30,800	30,600	**	30,300	36,100	33,800	**	**	**	**	**	**
Business / industry	32,800	32,400	**	30,800	38,600	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	25,200	25,200	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Oceanographers	**	**	**	**	**	**	**	**	**	**	**	**
Business / industry	**	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Atmospheric scientists	**	**	**	**	**	**	**	**	**	**	**	**
Business / industry	**	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Engineers	29,900	29,800	**	29,000	29,900	33,800	36,700	32,200	36,000	30,300	28,600	28,300
Business / industry	30,100	30,000	**	29,500	30,100	34,900	38,300	34,000	**	30,600	28,800	28,500
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	28,700	30,100	**	**	30,600	31,100	**	28,300	**	**	28,000	**
State government	24,100	**	**	**	**	**	**	**	**	**	**	**
Other government	25,000	**	**	**	**	**	**	**	**	**	**	**
Other[2]	26,600	**	**	**	**	**	**	**	**	**	**	**
Aeronautical / Astronautical	30,100	27,700	**	**	27,400	**	**	**	**	**	**	**
Business / industry	29,700	27,400	**	**	27,500	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Chemical	30,700	31,000	**	**	31,500	36,300	**	**	**	**	29,500	**
Business / industry	30,700	31,000	**	**	31,000	34,900	**	**	**	**	29,600	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Civil	27,000	28,400	**	**	28,500	29,100	**	28,200	**	25,800	27,800	24,800
Business / industry	26,700	28,600	**	**	28,600	**	**	**	**	**	**	26,700
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	27,400	**	**	**	**	**	**	**	**	**	**	**
State government	24,100	**	**	**	**	**	**	**	**	**	**	**
Other government	25,400	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Electrical / Electronic	30,300	30,200	**	**	30,200	39,500	**	**	**	**	29,200	33,500
Business / industry	30,100	30,200	**	**	30,200	39,700	**	**	**	**	29,100	33,200
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	30,600	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-35. **Median Annual Salary of Female Employed Scientists and Engineers by Field, Type of Employer, and Primary Work Activity: 1982**—continued

Field and Type of Employer	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Industrial	$25,700	$25,800	**	**	$25,900	$27,500	**	$28,300	**	**	$24,300	$25,300
Business / industry	25,700	25,800	**	**	25,900	27,500	**	28,300	**	**	24,300	25,300
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Materials	28,700	27,800	**	**	28,300	**	**	**	**	**	**	**
Business / industry	28,300	27,700	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Mechanical	30,000	29,300	**	**	29,100	**	**	**	**	**	30,400	**
Business / industry	29,000	29,300	**	**	29,100	**	**	**	**	**	30,300	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Mining	**	**	**	**	**	**	**	**	**	**	**	**
Business / industry	**	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Nuclear	**	**	**	**	**	**	**	**	**	**	**	**
Business / industry	**	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Petroleum	40,100	**	**	**	**	**	**	**	**	**	**	**
Business / industry	40,400	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Other	30,700	30,300	**	28,900	31,000	33,700	**	32,400	**	30,900	29,700	29,400
Business / industry	31,100	31,200	**	27,100	31,900	35,100	**	33,900	**	31,000	30,500	29,900
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	26,700	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Life scientists	24,900	23,000	24,200	22,700	22,600	28,000	32,500	25,000	25,700	**	22,800	22,800
Business / industry	27,000	25,700	**	26,800	24,100	31,900	32,600	30,100	**	**	25,700	24,300
4-yr coll./ univ.	23,900	20,300	21,700	14,200	**	**	**	**	28,800	**	**	**
2-yr college	30,200	**	**	**	**	**	**	**	28,800	**	**	**
Nonprofit organizats	26,100	23,500	25,100	**	**	**	**	**	**	**	**	**
Federal government	23,700	23,100	25,400	22,300	**	25,600	**	24,400	**	**	**	23,500
State government	19,600	20,900	**	**	**	**	**	**	**	**	**	20,500
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	25,700	23,600	**	**	**	**	**	**	**	**	**	25,900
Biologists	23,900	21,400	19,400	22,800	22,600	26,200	32,500	24,000	28,800	**	22,200	21,700
Business / industry	25,400	26,000	**	25,800	25,200	30,200	**	21,800	**	**	22,900	**
4-yr coll./ univ.	21,000	16,200	17,100	**	**	**	**	**	28,200	**	**	**
2-yr college	30,600	**	**	**	**	**	**	**	30,200	**	**	**
Nonprofit organizats	31,100	**	**	**	**	**	**	**	**	**	**	**
Federal government	22,700	21,400	20,700	21,900	**	24,900	**	**	**	**	**	23,300
State government	19,700	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	26,500	**	**	**	**	**	**	**	**	**	**	**

See Footnotes at end of Table

Table B-35. Median Annual Salary of Female Employed Scientists and Engineers by Field, Type of Employer, and Primary Work Activity: 1982—continued

Field and Type of Employer	Total	Research and development				Management or administration			Teaching	Consulting	Production and inspection	Other[1]
		Total	Basic research	Applied research	Development and design	Total	Of research & development	Of other than R & D				
Biochemists	$27,300	$26,000	$25,[illegible]00	**	**	**	**	**	**	**	**	**
Business / industry	34,900	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	20,800	19,800	20,000	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Agricultural scientists	21,700	20,[illegible]00	**	13,800	**	**	**	**	**	**	**	**
Business / industry	27,500	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	**	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Medical scientists	30,300	28,900	32,100	32,100	**	**	**	**	30,800	**	**	28,000
Business / industry	27,400	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	32,400	40,[illegible]00	38,100	**	**	**	**	**	30,800	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	24,100	**	**	**	**	**	**	**	**	**	**	**
Psychologists	28,700	26,800	**	**	**	29,500	**	28,500	26,800	**	24,000	28,200
Business / industry	30,900	**	**	**	**	35,500	**	**	**	**	**	30,700
4-yr coll./ univ.	26,700	**	**	**	**	**	**	**	27,000	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	19,800	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	20,500	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	26,000	**	**	**	**	**	**	**	**	**	**	26,000
Social scientists	26,800	27,100	31,000	27,400	**	27,200	36,200	25,400	28,600	**	**	22,900
Business / industry	25,700	22,900	**	28,400	**	24,500	34,900	20,900	**	**	**	30,500
4-yr coll./ univ.	29,200	27,700	**	**	**	**	**	**	29,200	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	23,900	**	**	**	**	**	**	**	**	**	**	**
Federal government	31,900	**	**	**	**	**	**	**	**	**	**	30,500
State government	26,000	**	**	**	**	**	**	**	**	**	**	**
Other government	14,800	**	**	**	**	**	**	**	**	**	**	**
Other[2]	22,400	**	**	**	**	**	**	**	**	**	**	**
Economists	32,400	30,800	**	33,100	**	36,400	**	**	28,800	**	**	34,400
Business / industry	32,200	**	**	**	**	**	**	**	**	**	**	34,600
4-yr coll./ univ.	34,600	**	**	**	**	**	**	**	**	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	35,500	**	**	**	**	**	**	**	**	**	**	36,000
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Sociologists / anthropologists	26,300	26,900	**	26,300	**	22,700	**	**	26,800	**	**	**
Business / industry	22,700	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	28,900	**	**	**	**	**	**	**	28,900	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	**	**	**	**	**	**	**	**	**	**	**	**
Other social scientists	24,800	**	**	**	**	27,500	**	27,300	26,100	**	**	29,900
Business / industry	25,000	**	**	**	**	**	**	**	**	**	**	**
4-yr coll./ univ.	28,600	**	**	**	**	**	**	**	28,700	**	**	**
2-yr college	**	**	**	**	**	**	**	**	**	**	**	**
Nonprofit organizats	**	**	**	**	**	**	**	**	**	**	**	**
Federal government	**	**	**	**	**	**	**	**	**	**	**	**
State government	**	**	**	**	**	**	**	**	**	**	**	**
Other government	**	**	**	**	**	**	**	**	**	**	**	**
Other[2]	21,600	**	**	**	**	**	**	**	**	**	**	**

**Fewer than 20 sample cases reported.

[1] Includes Report Writing, Statistical Work, Computer Applications, Other, and Not Reported

[2] Includes Elementary and Secondary Schools, Hospitals/Clinics, Military/Commissioned Corps, other Types of Employer, and Not Reported.

Source: National Science Foundation.

Table B-36. Number of Scientists and Engineers by State and Field: 1982

State	Total	Physical scientists				Mathematical scientists			Computer specialists	Environmental scientists			
		Total	Chemists	Physicists/ astronmrs.	Other physical scientists	Total	Mathematicians	Statisticians		Total	Earth scientists	Oceanographers	Atmospheric scientists
Total, all areas	1,911,917	128,536	87,544	28,106	12,884	48,425	40,777	7,648	174,833	46,086	38,882	1,734	5,470
Alabama	23,227	1,466	1,105	303	58	628	489	139	1,526	608	434	-	174
Alaska	3,033	11	-	-	11	36	-	36	117	353	280	18	54
Arizona	21,857	1,527	617	725	184	326	309	18	1,686	669	614	-	54
Arkansas	7,839	343	284	58	-	54	36	18	446	246	246	-	-
California	258,616	15,049	7,615	5,322	2,112	6,167	5,410	757	23,807	4,262	3,431	147	684
Colorado	37,958	1,815	883	497	436	746	662	84	2,909	4,694	4,500	-	194
Connecticut	41,126	3,385	2,482	590	313	1,253	1,020	234	4,164	364	273	16	74
Delaware	7,200	1,306	1,211	-	94	74	18	56	487	18	-	18	-
Dist. of Columbia	26,473	1,433	822	500	111	804	387	417	3,566	423	301	58	63
Florida	51,171	2,267	1,690	393	184	1,474	1,345	129	3,817	546	452	29	65
Georgia	31,218	1,582	1,286	210	86	595	398	197	2,988	253	195	-	58
Hawaii	7,739	314	148	133	33	328	295	33	440	380	315	36	29
Idaho	6,587	167	58	51	58	44	44	-	527	309	290	-	18
Illinois	86,519	6,675	5,267	797	611	1,730	1,507	223	9,269	935	703	-	232
Indiana	33,279	3,095	2,476	502	117	559	523	36	1,950	272	272	-	-
Iowa	15,264	615	301	268	46	400	217	183	775	177	177	-	-
Kansas	14,232	949	544	145	260	585	450	135	832	525	507	-	18
Kentucky	15,080	995	839	135	21	444	317	127	1,084	549	440	-	109
Louisiana	22,830	1,366	1,186	133	47	499	363	137	1,122	2,443	2,373	18	52
Maine	6,187	296	296	-	-	266	266	-	171	101	61	4	36
Maryland	49,482	4,556	2,287	1,810	460	2,794	2,102	692	6,064	1,242	509	113	621
Massachusetts	73,196	5,700	2,865	2,100	735	2,586	2,335	252	7,597	889	412	71	407
Michigan	71,349	3,895	3,109	469	318	1,055	953	102	4,421	450	345	-	105
Minnesota	33,937	2,209	1,563	499	147	871	682	189	4,459	275	203	-	72
Mississippi	8,955	578	302	276	-	423	405	18	491	813	431	364	18
Missouri	33,820	2,423	1,787	494	143	660	498	162	3,918	505	342	-	163
Montana	4,874	223	196	-	27	36	36	-	36	299	180	-	119
Nebraska	7,532	369	143	226	-	307	289	18	1,036	159	159	-	-
Nevada	3,931	268	229	18	21	136	127	9	69	378	378	-	-
New Hampshire	8,649	427	338	77	12	528	383	145	1,157	95	36	-	59
New Jersey	79,187	9,019	6,602	1,415	1,002	1,694	1,500	194	9,343	300	203	12	85
New Mexico	11,630	1,714	522	713	479	481	428	53	661	658	624	-	34
New York	148,453	10,554	8,178	1,679	697	4,168	3,242	926	18,759	1,476	1,146	136	194
North Carolina	32,113	2,263	1,613	356	294	1,029	742	287	3,056	450	266	-	184
North Dakota	3,420	209	209	-	-	54	18	36	155	133	79	-	54
Ohio	87,734	7,900	6,307	1,073	521	1,743	1,648	94	7,170	558	522	-	36
Oklahoma	21,052	1,507	1,237	117	153	487	395	92	2,248	2,134	1,936	-	197
Oregon	20,435	739	587	75	77	295	241	54	1,422	527	373	27	127
Pennsylvania	96,347	8,053	6,250	1,242	561	2,403	2,112	291	7,834	1,434	1,321	-	113
Rhode Island	6,122	419	284	126	10	274	262	12	334	101	11	72	18
South Carolina	15,443	1,112	770	175	167	215	207	8	880	113	101	-	12
South Dakota	2,722	218	167	51	-	54	54	-	72	86	86	-	-
Tennessee	26,759	2,551	1,701	514	336	1,142	1,031	110	2,050	340	304	-	36
Texas	117,598	5,416	3,357	1,372	687	2,775	2,466	309	11,854	9,617	9,064	43	511
Utah	12,811	823	479	268	75	209	156	53	925	604	531	-	73
Vermont	4,241	230	109	109	12	29	29	-	229	156	156	-	-
Virginia	44,926	2,785	1,931	335	519	1,693	1,513	180	4,891	980	734	95	151
Washington	46,452	1,630	1,160	339	131	619	481	137	4,313	861	442	280	139
West Virginia	8,209	801	743	58	-	179	145	34	319	324	324	-	-
Wisconsin	32,634	1,872	1,552	143	178	1,026	978	47	3,052	96	49	-	47
Wyoming	3,658	435	417	-	18	193	178	15	140	571	571	-	-
Other[1]	82,013	3,001	1,459	1,217	324	1,254	1,083	171	3,402	1,322	1,176	145	-

See Footnotes at end of Table

Table B-36. Number of Scientists and Engineers by State and Field: 1982—continued

State	Engineers											
	Total	Aero-nautical/ Astro.	Chemical	Civil	Electrical/ electronic	Industrial	Materials	Mechanical	Mining	Nuclear	Petroleum	Other
Total, all areas	1,146,882	50,229	66,911	186,768	282,380	74,669	25,536	228,891	8,303	10,016	15,036	242,923
Alabama	14,128	1,356	546	2,094	3,206	796	471	2,017	278	34	179	3,150
Alaska	1,260	66	8	333	214	-	109	94	34	-	211	190
Arizona	13,667	267	456	1,871	4,340	926	320	1,807	274	196	-	3,209
Arkansas	4,294	-	278	686	853	725	-	778	34	109	18	812
California	166,169	15,200	6,506	22,927	46,862	7,101	2,566	27,961	501	1,313	1,094	34,136
Colorado	21,831	1,440	1,228	3,368	4,852	380	581	3,355	1,074	18	1,032	4,523
Connecticut	24,903	1,054	1,240	2,303	5,217	1,542	1,049	6,793	-	373	44	5,287
Delaware	4,449	-	1,336	804	483	42	-	1,144	-	-	-	662
Dist. of Columbia	8,271	395	137	1,877	2,278	298	143	1,119	-	230	34	1,761
Florida	33,818	2,829	1,197	5,332	8,971	1,879	394	5,407	130	229	-	7,350
Georgia	17,649	932	603	3,591	4,586	1,245	95	2,505	11	211	-	3,870
Hawaii	4,422	-	12	2,003	1,049	46	-	470	-	109	-	733
Idaho	3,308	-	144	767	523	34	55	509	258	417	18	583
Illinois	49,717	278	2,953	7,246	[illegible]	4,331	1,140	12,956	299	334	369	9,807
Indiana	20,729	330	872	[illegible]	4,761	2,227	477	5,798	89	-	34	4,275
Iowa	8,666	-	366	1,146	1,536	972	136	2,041	-	-	-	2,448
Kansas	7,914	903	324	1,271	1,610	801	89	1,074	18	-	211	1,613
Kentucky	8,836	-	991	1,291	1,460	1,011	216	1,828	367	-	101	1,780
Louisiana	13,447	170	1,912	2,834	1,647	180	153	2,428	42	52	1,711	2,519
Maine	3,010	34	123	407	383	76	68	643	-	68	-	1,209
Maryland	24,547	892	[illegible]	3,096	8,453	937	544	3,762	143	409	-	5,443
Massachusetts	42,364	967	1,877	4,859	12,826	2,509	800	8,561	102	477	101	9,286
Michigan	49,043	421	2,328	4,344	8,310	4,757	1,386	18,496	125	178	76	10,622
Minnesota	18,392	362	1,486	2,921	4,847	1,490	154	3,869	162	-	-	3,082
Mississippi	4,370	34	237	1,069	843	403	34	451	18	-	89	1,190
Missouri	20,991	1,801	1,572	2,732	4,264	1,117	371	3,936	34	86	68	5,009
Montana	1,873	34	8	424	136	55	214	339	86	-	68	310
Nebraska	3,651	-	173	1,410	664	240	-	560	-	-	-	603
Nevada	1,913	69	143	442	432	68	109	170	68	68	-	305
New Hampshire	4,761	34	127	342	1,765	213	68	985	-	34	-	1,194
New Jersey	47,292	999	5,394	4,313	12,158	2,736	980	8,835	236	193	212	11,236
New Mexico	6,303	136	353	879	1,974	86	195	1,120	104	237	68	1,152
New York	76,930	1,793	5,102	10,924	20,720	4,166	1,487	13,743	114	811	227	17,845
North Carolina	18,343	68	1,350	2,386	3,932	2,413	319	3,270	143	330	-	4,132
North Dakota	1,124	-	-	506	68	104	-	68	34	-	34	308
Ohio	57,711	2,376	3,876	5,263	10,604	5,929	2,404	15,779	213	102	211	10,954
Oklahoma	11,731	510	871	1,379	2,218	662	44	2,315	18	-	1,136	2,574
Oregon	10,135	50	86	2,209	2,739	247	238	1,885	147	-	-	2,534
Pennsylvania	57,783	1,368	4,593	7,226	9,830	3,954	3,204	14,300	724	1,028	227	11,331
Rhode Island	2,954	-	34	169	897	362	34	617	-	-	-	820
South Carolina	[illegible]	68	873	2,011	1,342	1,018	285	2,204	52	110	-	2,091
South Dakota	[illegible]	-	34	515	281	68	-	76	36	-	-	398
Tennessee	15,332	[illegible]	[illegible]	3,112	2,630	1,692	290	2,721	161	361	10	2,753
Texas	72,384	[illegible]	7,470	9,234	14,214	3,914	1,005	12,827	519	136	5,880	12,746
Utah	7,992	414	775	1,651	1,575	196	213	778	525	18	-	1,846
Vermont	2,332	-	72	306	725	110	52	596	-	-	-	467
Virginia	24,118	1,093	839	3,737	5,919	1,859	448	3,181	98	496	64	6,366
Washington	30,659	4,111	1,124	5,210	6,312	1,867	652	[illegible]	156	453	-	5,345
West Virginia	4,836	68	1,205	566	815	146	278	757	339	-	27	614
Wisconsin	19,838	278	652	2,572	3,699	2,385	743	5,128	244	-	-	4,135
Wyoming	1,433	-	68	594	110	-	18	185	146	-	52	259
Other[1]	63,646	2,068	2,879	9,463	14,232	4,281	902	11,246	159	778	1,801	16,037

See Footnotes at end of Table

Table B-36. Number of Scientists and Engineers by State and Field: 1982—continued

State	Life scientists					Psychologists	Social scientists			
	Total	Biologists	Biochemists	Agricultural scientists	Medical scientists		Total	Economists	Sociologists/ anthropigsts.	Other social scientists
Total, all areas	149,477	82,888	16,476	39,380	15,831	98,225	138,615	51,831	35,139	51,644
Alabama	2,565	1,467	161	713	224	932	1,354	281	276	796
Alaska	815	471	–	301	43	118	324	75	141	108
Arizona	1,330	801	151	238	140	1,172	1,280	506	190	585
Arkansas	966	646	–	300	20	716	772	263	39	470
California	15,643	10,159	1,346	2,571	1,567	12,214	13,305	4,809	3,042	5,454
Colorado	2,612	1,614	240	549	209	1,464	1,888	756	489	643
Connecticut	2,275	1,246	210	306	514	1,970	2,810	1,105	1,140	565
Delaware	456	267	63	70	56	138	272	75	54	144
Dist. of Columbia	1,647	1,046	118	316	167	880	8,419	5,638	665	2,116
Florida	4,340	2,749	124	1,094	373	1,976	2,932	812	584	1,536
Georgia	4,254	2,773	163	861	457	1,726	2,201	551	916	734
Hawaii	957	541	19	167	231	269	628	124	78	427
Idaho	1,543	1,087	–	435	21	390	398	86	25	287
Illinois	5,273	3,478	516	640	639	5,110	6,810	2,816	909	3,086
Indiana	2,572	1,342	261	543	425	1,523	2,580	1,313	197	1,071
Iowa	2,520	1,284	43	747	446	986	1,125	357	187	581
Kansas	1,469	813	–	604	52	717	1,243	136	313	793
Kentucky	1,819	1,424	139	216	39	324	1,049	606	35	408
Louisiana	2,179	1,526	21	570	62	794	976	198	512	266
Maine	1,231	932	26	273	–	475	637	121	376	140
Maryland	4,486	2,957	437	468	624	2,264	3,530	1,337	527	1,666
Massachusetts	3,754	2,321	440	222	772	4,266	6,021	2,357	1,242	2,423
Michigan	4,233	2,713	525	541	454	3,092	5,159	1,906	630	2,623
Minnesota	2,968	1,771	128	913	156	1,977	2,787	945	947	895
Mississippi	1,563	1,114	–	321	128	241	476	192	25	259
Missouri	2,571	1,796	166	307	302	1,700	1,052	275	331	446
Montana	1,729	1,355	–	223	152	580	285	156	129	–
Nebraska	961	364	198	371	64	690	337	289	36	12
Nevada	694	424	109	130	31	256	216	23	193	–
New Hampshire	361	209	–	21	130	406	915	369	491	54
New Jersey	5,224	3,281	286	970	687	2,096	4,220	2,073	782	1,365
New Mexico	853	477	29	190	156	583	376	93	258	24
New York	11,446	6,402	1,833	1,674	1,537	10,783	14,336	5,734	3,087	5,516
North Carolina	2,848	1,939	86	505	318	1,706	2,417	1,063	546	809
North Dakota	730	430	21	126	152	302	712	121	24	568
Ohio	4,889	2,799	452	1,204	434	3,686	4,075	1,895	684	1,496
Oklahoma	1,450	699	119	549	83	787	707	191	237	279
Oregon	4,712	3,593	10	974	135	818	1,798	1,082	243	482
Pennsylvania	6,809	3,596	773	1,580	860	4,965	6,237	2,511	1,058	2,668
Rhode Island	639	379	9	230	21	758	642	142	117	383
South Carolina	1,584	959	130	446	29	427	1,076	504	200	373
South Dakota	378	238	–	130	10	155	350	154	133	64
Tennessee	2,758	1,751	98	797	112	1,620	966	230	463	273
Texas	7,422	4,243	334	1,932	912	3,120	5,010	1,669	853	2,487
Utah	1,091	953	21	74	43	521	646	224	191	230
Vermont	642	559	–	25	58	173	451	109	113	230
Virginia	3,967	2,145	196	1,241	384	2,382	4,110	1,710	150	2,250
Washington	4,843	3,088	181	973	601	1,981	1,547	596	204	747
West Virginia	1,282	851	–	239	191	128	341	156	12	173
Wisconsin	2,921	1,829	156	775	157	1,413	2,415	807	491	1,117
Wyoming	507	300	–	90	117	122	256	121	12	124
Other[1]	2,867	1,712	111	529	514	2,400	4,121	2,185	572	1,365

NOTE: Detail may not add to total due to rounding.

Data are for "state of employment" for those employed, and "state of residence" for those not employed.

[1] Includes outlying areas of the U.S., foreign countries, and Not Reported.

Source: National Science Foundation.

Table B-37. Number of Scientists and Engineers by State, Sex, and Employment Status: 1982

State and Sex	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Total, all states	1,911,917	1,759,344	1,588,586	170,758	1,698,640	1,534,711	163,930	60,704	53,876	6,829	35,260	117,313	86,327	30,985
Male	1,729,032	1,598,067	1,449,500	148,567	1,559,109	1,415,196	143,913	38,959	34,304	4,655	28,863	102,101	83,528	18,573
Female	182,885	161,277	139,086	22,191	139,532	119,514	20,017	21,746	19,572	2,174	6,397	15,211	2,799	12,412
Alabama	23,227	20,840	18,982	1,858	20,357	18,653	1,705	482	329	153	535	1,852	1,803	49
Male	21,334	19,136	17,323	1,812	18,776	17,116	1,659	360	207	153	412	1,786	1,786	-
Female	1,893	1,704	1,659	45	1,582	1,537	45	122	122	-	123	66	17	49
Alaska	3,033	2,971	2,810	160	2,874	2,713	160	97	97	-	30	32	21	11
Male	2,581	2,529	2,501	28	2,486	2,458	28	43	43	-	30	21	21	-
Female	452	442	310	132	387	255	132	54	54	-	-	11	-	11
Arizona	21,657	17,980	16,074	1,906	16,290	14,512	1,778	1,690	1,562	128	446	3,231	2,944	287
Male	19,641	16,179	14,439	1,740	14,952	13,321	1,631	1,226	1,118	109	277	3,186	2,944	241
Female	2,016	1,801	1,635	166	1,336	1,191	147	464	445	19	169	45	-	45
Arkansas	7,839	7,169	6,483	686	6,907	6,221	686	262	262	-	112	558	447	111
Male	7,477	6,817	6,145	671	6,555	5,884	671	262	262	-	112	548	447	101
Female	362	352	337	15	352	337	15	-	-	-	-	10	-	10
California	256,616	235,593	215,788	19,805	225,746	207,029	18,717	9,847	8,759	1,088	4,953	16,070	12,160	3,909
Male	230,562	211,843	195,393	16,450	205,332	189,499	15,833	6,511	5,894	617	4,094	14,625	11,730	2,895
Female	26,054	23,750	20,396	3,355	20,414	17,530	2,884	3,336	2,866	470	858	1,445	431	1,014
Colorado	37,958	35,594	32,482	3,112	34,084	31,373	2,711	1,510	1,109	401	680	1,684	1,388	297
Male	34,580	32,506	29,916	2,590	31,591	29,162	2,429	914	754	161	617	1,457	1,388	69
Female	3,378	3,088	2,566	522	2,493	2,211	282	595	355	240	63	227	-	227
Connecticut	41,126	37,439	32,905	4,534	36,248	31,912	4,336	1,191	993	198	1,010	2,677	1,911	766
Male	36,127	33,246	29,729	3,517	32,692	29,363	3,329	554	366	189	799	2,081	1,896	186
Female	4,999	4,193	3,176	1,017	3,556	2,548	1,006	637	627	10	210	595	15	580
Delaware	7,200	6,483	6,045	438	6,410	6,030	379	73	15	58	126	590	590	-
Male	6,470	5,778	5,360	418	5,720	5,360	359	58	-	58	101	590	590	-
Female	730	705	685	20	690	670	20	15	15	-	25	-	-	-
Dist. of Columbia	25,473	25,044	22,573	2,471	24,335	21,926	2,409	709	647	62	159	271	160	110
Male	21,292	20,930	19,204	1,726	20,550	18,836	1,714	380	368	12	92	271	160	110
Female	4,180	4,114	3,369	745	3,785	3,090	695	329	279	50	67	-	-	-
Florida	51,171	43,149	38,106	5,042	41,635	36,706	4,928	1,514	1,400	114	985	7,037	5,950	1,087
Male	47,495	40,055	35,507	4,547	38,906	34,473	4,433	1,148	1,034	114	959	6,482	5,707	775
Female	3,676	3,094	2,599	495	2,728	2,233	495	365	365	-	26	556	243	312
Georgia	31,218	28,458	24,038	4,420	27,681	23,388	4,293	777	650	127	770	1,990	1,253	738
Male	28,125	25,871	22,455	3,416	25,155	21,866	3,289	716	589	127	575	1,679	1,241	438
Female	3,093	2,587	1,583	1,003	2,525	1,522	1,003	61	61	-	195	311	12	300
Hawaii	7,738	6,902	6,325	577	6,579	6,045	533	323	280	43	282	555	409	146
Male	6,995	6,306	5,792	514	6,041	5,561	480	265	231	34	262	426	409	18
Female	743	596	533	63	538	484	54	58	49	9	20	128	-	128
Idaho	6,587	6,181	5,573	608	5,885	5,295	590	296	278	18	95	311	262	49
Male	6,184	5,791	5,183	608	5,578	4,989	590	213	195	18	95	298	262	36
Female	403	390	390	-	307	307	-	83	83	-	-	13	-	13
Illinois	85,519	78,912	69,703	9,209	76,525	67,534	8,992	2,387	2,169	217	2,252	4,355	2,681	1,673
Male	76,469	71,193	63,158	8,035	69,841	61,960	7,882	1,351	1,198	153	1,958	3,318	2,560	758
Female	9,050	7,719	6,545	1,174	6,684	5,574	1,110	1,035	971	64	294	1,037	121	916
Indiana	33,279	30,073	27,444	2,629	29,021	26,427	2,595	1,051	1,017	34	628	2,578	2,237	342
Male	31,166	28,376	25,799	2,577	27,431	24,888	2,543	945	911	34	364	2,425	2,237	189
Female	2,114	1,696	1,645	52	1,590	1,538	52	106	106	-	264	153	-	153
Iowa	15,264	14,731	12,956	1,775	14,047	12,293	1,754	684	662	21	-	533	393	141
Male	13,360	12,949	11,759	1,190	12,440	11,271	1,168	509	488	21	-	411	393	19
Female	1,904	1,782	1,198	585	1,607	1,022	585	174	174	-	-	122	-	122
Kansas	14,232	12,904	11,428	1,476	11,818	10,462	1,357	1,085	966	119	171	1,157	845	313
Male	13,331	12,161	10,712	1,449	11,393	10,063	1,330	768	649	119	160	1,010	732	278
Female	901	743	716	27	426	399	27	317	317	-	11	147	113	35
Kentucky	15,080	13,255	11,431	1,824	12,853	11,063	1,790	402	368	34	479	1,346	1,150	196
Male	13,673	12,034	10,246	1,788	11,892	10,138	1,754	142	108	34	440	1,200	1,033	167
Female	1,407	1,221	1,185	37	961	924	37	260	260	-	39	146	117	29
Louisiana	22,830	21,476	19,259	2,217	20,576	18,378	2,198	900	881	20	107	1,246	811	435
Male	20,851	19,771	17,702	2,069	19,232	17,163	2,069	539	539	-	81	999	811	187
Female	1,979	1,705	1,557	148	1,344	1,215	129	362	342	20	26	248	-	248
Maine	6,167	5,611	5,034	577	5,090	4,689	401	521	345	176	78	498	326	172
Male	5,198	4,974	4,598	376	4,889	4,523	366	85	76	9	68	156	101	55
Female	969	637	435	202	201	166	35	436	269	167	10	342	225	117
Maryland	49,482	45,229	42,033	3,197	43,645	40,635	3,010	1,584	1,398	186	410	3,843	2,601	1,241
Male	42,587	38,999	36,600	2,399	38,188	35,853	2,335	811	747	64	258	3,329	2,591	737
Female	6,895	6,230	5,432	798	5,457	4,782	675	773	650	122	152	514	10	504
Massachusetts	73,196	68,009	60,988	7,021	64,745	58,115	6,630	3,265	2,874	391	1,370	3,817	2,062	1,755
Male	65,414	61,087	54,954	6,133	59,510	53,554	5,956	1,576	1,400	177	1,174	3,153	2,062	1,091
Female	7,782	6,922	6,034	888	5,234	4,560	674	1,688	1,474	214	196	664	-	664
Michigan	71,348	65,433	60,345	5,088	63,380	58,376	5,004	2,053	1,969	84	1,535	4,381	2,769	1,612
Male	65,352	60,735	56,140	4,595	59,512	54,961	4,551	1,223	1,179	44	1,268	3,349	2,511	838
Female	5,996	4,697	4,205	493	3,868	3,415	453	830	790	39	267	1,031	258	774
Minnesota	33,937	31,597	28,502	3,095	30,842	27,965	2,877	755	537	218	538	1,802	1,368	434
Male	30,149	28,385	25,901	2,483	28,014	25,616	2,397	371	285	86	361	1,403	1,138	265
Female	3,788	3,212	2,600	612	2,828	2,349	479	384	252	132	177	399	230	169
Mississippi	8,955	8,509	8,104	405	8,331	7,941	391	178	164	14	24	421	337	84
Male	8,538	8,130	7,767	363	7,966	7,603	363	164	164	-	24	383	319	64
Female	417	379	337	42	365	337	28	14	-	14	-	38	18	20
Missouri	33,820	32,588	29,385	3,202	31,889	28,699	3,190	698	687	12	196	1,037	641	396
Male	30,904	29,929	27,118	2,811	29,570	26,772	2,799	358	347	12	168	807	641	166
Female	2,917	2,659	2,267	391	2,318	1,927	391	340	340	-	28	230	-	230

See Footnotes at end of Table

Table B-37. Number of Scientists and Engineers by State, Sex, and Employment Status: 1982 —continued

State and Sex		Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
	Total	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Montana	4,874	4,112	3,812	290	3,842	3,542	290	270	270	-	222	540	337	203
Male	4,255	3,652	3,353	290	3,510	3,210	290	143	143	-	101	501	337	164
Female	619	460	460	-	332	332	-	127	127	-	121	39	-	39
Nebraska	7,532	7,280	6,563	717	6,985	6,268	717	295	295	-	-	252	89	163
Male	6,448	6,223	5,725	498	6,079	5,580	498	145	145	-	-	224	89	135
Female	1,085	1,057	838	219	907	688	219	150	150	-	-	28	-	28
Nevada	3,931	3,739	3,325	414	3,577	3,306	271	162	20	143	65	126	107	19
Male	3,516	3,364	2,970	394	3,222	2,970	252	143	-	143	44	107	107	-
Female	415	375	355	20	355	335	20	20	20	-	21	19	-	19
New Hampshire	8,649	7,740	7,025	715	7,532	6,827	705	208	198	10	186	724	529	195
Male	7,767	6,914	6,443	471	6,794	6,323	471	119	119	-	168	686	509	177
Female	882	826	582	244	737	503	234	89	79	10	18	38	20	18
New Jersey	79,187	72,429	64,421	8,008	70,516	62,767	7,749	1,913	1,654	259	1,728	5,030	3,921	1,119
Male	70,745	65,019	57,995	7,023	63,623	56,829	6,795	1,396	1,167	229	1,271	4,455	3,903	553
Female	8,442	7,410	6,426	984	6,893	5,936	955	517	486	30	457	575	18	567
New Mexico	11,630	10,361	9,718	643	9,671	9,028	643	690	690	-	243	1,026	707	318
Male	10,382	9,280	8,657	623	8,859	8,236	623	421	421	-	234	868	707	160
Female	1,248	1,081	1,061	20	812	792	20	269	269	-	8	158	-	158
New York	148,453	137,216	120,634	16,582	133,123	116,898	16,225	4,093	3,736	357	3,056	8,182	5,303	2,879
Male	128,962	119,687	105,286	14,401	117,383	103,159	14,224	2,304	2,128	177	2,301	6,974	5,275	1,700
Female	19,491	17,529	15,348	2,181	15,740	13,739	2,001	1,789	1,609	180	755	1,207	28	1,179
North Carolina	32,113	29,722	26,385	3,337	29,029	25,930	3,099	693	456	237	883	1,507	1,026	481
Male	29,252	27,044	24,058	2,986	26,469	23,718	2,751	575	340	235	847	1,361	1,018	343
Female	2,861	2,678	2,327	351	2,560	2,212	348	118	116	3	36	146	8	138
North Dakota	3,420	3,276	3,239	37	3,143	3,107	37	133	133	-	58	86	68	18
Male	3,197	3,053	3,019	34	2,920	2,886	34	133	133	-	58	86	68	18
Female	223	223	220	3	223	220	3	-	-	-	-	-	-	-
Ohio	87,734	80,469	72,994	7,475	77,730	70,526	7,204	2,739	2,468	271	1,091	6,174	4,116	2,058
Male	82,322	75,484	68,571	6,913	73,630	66,988	6,642	1,854	1,583	271	1,022	5,816	4,116	1,700
Female	5,412	4,985	4,423	562	4,100	3,536	562	885	885	-	70	358	-	358
Oklahoma	21,052	19,445	18,356	1,089	18,902	17,824	1,078	543	532	11	419	1,188	1,088	100
Male	19,624	18,137	17,084	1,052	17,883	16,841	1,042	254	243	11	381	1,106	1,088	18
Female	1,429	1,308	1,272	36	1,019	983	36	289	289	-	38	82	-	82
Oregon	20,436	18,312	16,604	1,709	17,180	15,516	1,664	1,132	1,088	45	413	1,710	1,458	252
Male	18,531	16,735	15,079	1,656	15,899	14,264	1,635	836	815	21	404	1,393	1,291	102
Female	1,904	1,577	1,525	53	1,281	1,252	29	296	273	23	10	317	167	150
Pennsylvania	95,347	85,476	76,844	8,632	83,628	75,144	8,485	1,848	1,700	147	2,279	7,592	5,403	2,189
Male	87,376	78,744	71,325	7,419	77,794	70,494	7,300	950	831	119	2,065	6,566	5,057	1,510
Female	7,972	6,732	5,519	1,213	5,834	4,649	1,185	898	870	28	214	1,026	346	679
Rhode Island	6,122	5,586	5,145	441	5,156	4,749	407	430	396	34	304	232	222	10
Male	5,024	4,614	4,310	304	4,411	4,142	270	203	169	34	187	222	222	-
Female	1,098	971	835	137	744	607	137	227	227	-	117	10	-	10
South Carolina	15,443	13,816	12,079	1,737	13,283	11,563	1,720	533	516	17	615	1,013	887	126
Male	14,117	12,694	11,142	1,553	12,315	10,763	1,553	379	379	-	435	988	887	101
Female	1,326	1,121	937	184	968	800	168	153	137	17	179	25	-	25
South Dakota	2,722	2,692	2,155	537	2,566	2,029	537	126	126	-	12	18	18	-
Male	2,493	2,463	2,035	428	2,362	1,934	428	101	101	-	12	18	18	-
Female	229	229	120	109	204	95	109	25	25	-	-	-	-	-
Tennessee	26,758	25,223	22,289	2,934	24,862	22,137	2,724	361	151	210	421	1,115	970	145
Male	24,267	22,982	20,343	2,639	22,705	20,275	2,429	277	67	210	310	975	839	136
Female	2,491	2,241	1,946	295	2,157	1,862	295	84	84	-	110	140	131	10
Texas	117,598	110,194	100,297	9,897	107,689	97,932	9,757	2,505	2,365	140	1,676	5,727	3,827	1,900
Male	109,246	103,065	93,937	9,128	101,168	92,172	8,996	1,897	1,765	132	1,305	4,875	3,819	1,056
Female	8,352	7,129	6,360	769	6,521	5,760	761	608	600	8	371	852	8	844
Utah	12,811	11,570	10,945	625	11,350	10,725	625	220	220	-	116	1,125	719	406
Male	12,009	11,038	10,487	551	10,828	10,277	551	211	211	-	88	882	606	276
Female	803	532	458	74	522	448	74	10	10	-	28	243	113	130
Vermont	4,241	3,807	3,338	469	3,652	3,182	469	156	156	-	34	400	261	140
Male	3,879	3,492	3,023	469	3,383	2,913	469	110	110	-	34	353	244	109
Female	362	315	315	-	269	269	-	46	46	-	-	48	17	31
Virginia	44,926	40,420	36,541	3,879	38,756	35,044	3,712	1,664	1,497	167	972	3,534	2,878	656
Male	39,062	35,318	31,842	3,476	34,105	30,767	3,339	1,212	1,075	137	765	2,979	2,765	214
Female	5,864	5,102	4,699	403	4,651	4,277	373	451	422	30	207	555	113	443
Washington	46,452	42,303	38,321	3,982	40,417	36,640	3,778	1,886	1,682	204	1,314	2,836	2,540	295
Male	43,117	39,222	35,953	3,269	37,736	34,568	3,167	1,486	1,385	102	1,154	2,741	2,532	209
Female	3,335	3,081	2,368	712	2,681	2,071	610	399	297	102	160	95	8	86
West Virginia	8,209	7,654	7,239	414	7,243	6,936	306	410	302	109	102	454	437	17
Male	7,542	7,003	6,597	406	6,826	6,529	297	177	68	109	102	437	437	-
Female	667	650	642	8	417	408	8	234	234	-	-	17	-	17
Wisconsin	32,634	30,153	26,799	3,353	29,432	26,108	3,324	720	691	29	425	2,056	1,641	415
Male	29,746	27,613	24,379	3,234	27,340	24,106	3,234	273	273	-	392	1,742	1,641	101
Female	2,887	2,540	2,420	119	2,092	2,002	90	447	419	29	33	314	-	314
Wyoming	3,658	3,575	3,397	179	3,182	3,120	62	393	276	117	28	54	-	54
Male	3,145	3,093	3,031	62	2,951	2,889	62	143	143	-	18	34	-	34
Female	513	482	366	117	232	232	-	251	134	117	10	20	-	20
Other[1]	82,013	80,648	75,324	5,324	78,401	73,483	4,917	2,247	1,840	407	627	739	254	484
Male	77,155	76,423	71,451	4,973	74,699	70,107	4,592	1,724	1,344	381	416	316	241	75
Female	4,858	4,224	3,873	351	3,702	3,376	325	523	497	26	211	423	14	409

NOTE: Detail may not add to total due to rounding.

Data are for "state of employment" for those employed, and "state of residence" for those not employed.

[1] Includes outlying areas of the U.S., foreign countries, and Not Reported.

Source: National Science Foundation.

Table B-38. Number of Employed Scientists and Engineers by State of Employment and Field: 1982

State	Total	Physical scientists				Mathematical scientists			Computer specialists	Environmental scientists			
		Total	Chemists	Physicists/ astronmrs.	Other physical scientists	Total	Mathema-ticians	Statis-ticians		Total	Earth scientists	Oceanog-raphers	Atmos-pheric scientists
Total, all areas	**1,789,344**	**115,821**	**78,928**	**25,802**	**11,091**	**43,944**	**36,845**	**7,099**	**168,578**	**42,407**	**35,850**	**1,649**	**4,907**
Alabama	20,840	1,189	828	303	58	626	469	139	1,486	496	322	-	174
Alaska	2,971	-	-	-	-	36	-	36	117	335	262	18	54
Arizona	17,960	818	239	496	83	326	309	18	1,597	622	568	-	54
Arkansas	7,169	343	284	58	-	36	36	-	446	145	145	-	-
California	235,593	13,586	6,741	5,044	1,801	5,295	4,772	523	23,279	3,799	3,078	147	575
Colorado	35,594	1,601	770	395	436	746	662	84	2,889	4,321	4,135	-	186
Connecticut	37,439	3,103	2,331	477	295	1,253	1,020	234	4,016	354	262	18	74
Delaware	8,483	1,156	1,062	-	94	74	18	56	487	18	-	18	-
Dist. of Columbia	25,044	1,333	722	500	111	804	387	417	3,586	423	301	58	63
Florida	43,148	1,867	1,391	393	83	1,004	893	111	3,518	510	416	29	65
Georgia	28,458	1,444	1,250	109	86	574	386	188	2,916	232	174	-	58
Hawaii	6,902	314	148	133	33	328	295	33	420	360	315	36	9
Idaho	6,181	167	58	51	58	27	27	-	491	287	269	-	18
Illinois	78,912	5,999	4,633	755	611	1,358	1,165	193	8,754	917	703	-	214
Indiana	30,073	2,600	2,132	351	117	559	523	36	1,914	272	272	-	-
Iowa	14,731	514	301	167	46	400	217	183	775	177	177	-	-
Kansas	12,904	890	485	145	260	584	450	135	777	525	507	-	18
Kentucky	13,255	769	612	135	21	297	170	127	1,064	411	303	-	109
Louisiana	21,476	1,205	1,025	133	47	382	246	137	1,009	2,407	2,355	-	52
Maine	5,611	298	298	-	-	154	154	-	171	101	61	4	36
Maryland	45,229	4,117	2,007	1,650	460	2,493	1,821	672	5,960	1,203	487	113	603
Massachusetts	68,009	5,422	2,646	2,041	735	2,434	2,301	133	7,372	718	384	71	264
Michigan	65,433	3,762	2,975	469	318	1,027	943	84	4,239	323	218	-	105
Minnesota	31,597	1,913	1,279	487	147	871	682	189	4,358	275	203	-	72
Mississippi	8,509	554	278	276	-	405	387	18	471	813	431	364	18
Missouri	32,588	2,423	1,787	494	143	626	464	162	3,918	487	324	-	163
Montana	4,112	121	94	-	27	20	20	-	36	186	169	-	18
Nebraska	7,280	369	143	226	-	269	269	-	1,038	159	159	-	-
Nevada	3,739	257	218	18	21	136	127	9	69	368	368	-	-
New Hampshire	7,740	427	338	77	12	528	383	145	1,157	95	36	-	58
New Jersey	72,429	8,255	6,099	1,154	1,002	1,449	1,263	185	8,895	289	192	12	85
New Mexico	10,361	1,605	413	713	479	463	410	53	881	612	578	-	34
New York	137,216	9,803	7,657	1,453	694	3,788	2,983	805	18,011	1,336	1,006	136	194
North Carolina	29,722	2,053	1,403	356	294	1,009	722	287	2,932	313	248	-	65
North Dakota	3,276	151	151	-	-	54	18	36	155	133	79	-	54
Ohio	80,469	7,071	5,535	1,015	521	1,622	1,528	94	7,049	558	522	-	36
Oklahoma	19,445	1,305	1,035	117	153	351	[illegible]	92	2,229	1,961	1,764	-	197
Oregon	18,312	739	587	75	77	295	241	54	1,306	491	337	27	127
Pennsylvania	85,476	7,173	5,488	1,141	544	2,276	2,003	274	7,586	1,091	978	-	113
Rhode Island	5,586	419	284	126	10	274	262	12	334	83	11	54	18
South Carolina	13,816	1,003	661	175	167	215	207	8	880	113	101	-	12
South Dakota	2,692	218	167	51	-	54	54	-	72	86	86	-	-
Tennessee	25,223	2,254	1,404	514	336	1,106	1,014	93	2,050	340	304	-	36
Texas	110,194	5,094	3,036	1,372	687	2,288	1,980	309	11,537	9,281	8,764	43	474
Utah	11,570	722	479	167	75	209	156	53	889	412	339	-	73
Vermont	3,807	213	92	109	12	29	29	-	209	156	156	-	-
Virginia	40,420	2,258	1,633	325	300	1,693	1,513	180	4,649	824	596	77	151
Washington	42,303	1,493	1,034	339	119	619	481	137	4,027	825	406	280	139
West Virginia	7,654	726	668	58	-	179	145	34	319	324	324	-	-
Wisconsin	30,153	1,646	1,426	143	77	1,008	960	47	2,899	76	39	-	36
Wyoming	3,576	435	417	-	18	193	178	15	140	542	542	-	-
Other[1]	80,648	2,627	1,286	1,017	324	1,076	905	171	3,402	1,220	1,075	145	-

See Footnotes at end of Table

Table B-38. Number of Employed Scientists and Engineers by State of Employment and Field: 1982—continued

State	Engineers											
	Total	Aero-nautical/ Astro.	Chemical	Civil	Electrical/ electronic	Industrial	Materials	Mechanical	Mining	Nuclear	Petroleum	Other
Total, all areas	1,050,872	46,887	61,277	145,966	246,781	67,937	22,886	206,943	7,334	9,657	14,166	222,930
Alabama	12,862	1,054	411	1,907	2,960	796	437	1,963	278	34	179	2,824
Alaska	1,260	66	8	333	214	-	109	94	34	-	211	190
Arizona	11,332	267	321	1,260	4,137	816	211	1,435	222	196	-	2,467
Arkansas	3,775	-	278	551	684	[illegible]	-	778	34	109	18	742
California	151,369	13,865	5,862	20,367	44,120	[illegible]	2,186	24,867	298	1,279	925	31,660
Colorado	20,474	1,321	1,211	3,123	4,413	326	581	3,111	954	18	1,032	4,385
Connecticut	22,538	1,054	1,130	2,000	4,729	1,474	981	6,100	-	364	44	4,682
Delaware	3,883	-	1,191	770	463	42	-	833	-	-	-	594
Dist. of Columbia	6,239	385	137	1,877	2,257	287	143	1,119	-	230	34	[illegible]
Florida	28,122	2,606	926	4,400	7,601	1,490	384	4,076	130	195	-	[illegible]
Georgia	15,861	924	456	3,144	4,103	1,123	95	2,344	11	211	-	[illegible]
Hawaii	3,864	-	12	1,806	813	46	-	418	-	109	-	[illegible]
Idaho	3,139	-	144	632	523	34	56	476	258	417	[illegible]	[illegible]
Illinois	46,037	244	2,571	6,837	9,228	4,110	922	12,021	296	334	386	9,084
Indiana	18,362	167	786	1,857	4,352	2,177	376	5,071	86	-	-	3,457
Iowa	8,378	-	287	1,112	1,502	972	136	2,023	-	-	-	[illegible]
Kansas	7,051	869	324	1,161	1,366	801	89	838	18	-	211	1,373
Kentucky	7,877	-	719	1,280	1,460	977	208	1,324	357	-	-	1,544
Louisiana	12,752	162	1,792	2,566	1,546	180	153	2,207	8	52	1,677	2,409
Maine	2,807	34	123	373	383	76	68	609	-	68	-	1,074
Maryland	22,540	656	823	2,826	7,809	869	544	3,323	143	409	-	5,139
Massachusetts	39,047	933	1,497	4,393	12,281	2,169	782	7,702	102	443	-	8,745
Michigan	44,927	421	1,984	3,987	6,043	4,304	1,318	16,737	125	178	76	9,774
Minnesota	17,209	326	1,283	2,399	4,737	1,456	154	3,754	128	-	-	2,969
Mississippi	4,159	34	237	968	943	403	34	451	18	-	89	1,081
Missouri	19,979	1,801	1,470	2,864	4,264	982	371	3,769	-	66	68	4,504
Montana	1,465	34	8	390	136	55	66	339	86	-	68	301
Nebraska	3,449	-	173	1,275	596	240	-	560	-	-	-	603
Nevada	1,774	[illegible]	143	424	364	66	109	170	66	66	-	263
New Hampshire	4,085	34	18	342	1,621	213	34	951	-	34	-	838
New Jersey	42,565	869	4,305	4,034	11,050	2,617	694	7,818	236	159	179	10,296
New Mexico	5,377	136	244	702	1,704	52	195	910	104	203	68	1,060
New York	70,397	1,420	4,510	10,350	19,182	3,492	1,267	12,655	114	709	126	16,573
North Carolina	17,021	68	1,148	2,235	3,745	2,413	319	2,912	143	278	-	3,760
North Dakota	1,036	-	-	440	68	104	-	68	34	-	34	290
Ohio	52,079	2,121	3,486	5,166	10,161	4,964	1,942	13,906	179	102	102	9,950
Oklahoma	10,870	510	829	1,244	2,016	628	44	2,139	18	-	1,136	2,303
Oregon	8,914	8	86	2,022	2,671	213	236	1,581	34	-	-	2,061
Pennsylvania	51,715	1,098	4,221	6,508	9,154	3,581	2,814	12,276	487	1,011	219	10,346
Rhode Island	2,785	-	34	169	864	314	-	617	-	-	-	787
South Carolina	9,179	68	831	1,741	1,124	910	252	2,204	34	102	-	1,914
South Dakota	1,391	-	34	515	281	66	-	76	18	-	-	398
Tennessee	14,352	289	1,139	2,823	2,460	1,639	290	2,576	161	381	10	2,585
Texas	68,106	4,411	6,986	8,496	13,466	3,666	896	12,162	500	136	5,542	11,742
Utah	7,468	414	651	1,516	1,473	196	136	778	507	18	-	1,778
Vermont	2,144	-	72	305	725	110	51	447	-	-	-	433
Virginia	21,747	924	829	3,186	5,493	1,569	439	2,856	96	496	64	5,793
Washington	27,712	3,762	1,022	4,550	5,811	1,661	616	4,778	156	451	-	4,904
West Virginia	4,565	66	1,206	566	714	146	278	655	339	-	27	548
Wisconsin	18,201	244	643	2,456	3,556	2,114	642	4,613	211	-	-	3,722
Wyoming	1,399	-	66	594	110	-	16	186	146	-	16	259
Other[1]	63,121	2,046	2,626	9,283	14,221	4,281	694	11,246	159	778	1,601	15,786

See Footnotes at end of Table

Table B-38. Number of Employed Scientists and Engineers by State of Employment and Field: 1982—continued

State	Life scientists					Psychologists	Social scientists			
	Total	Biologists	Biochemists	Agricultural scientists	Medical scientists		Total	Economists	Sociologists/ anthropigsts.	Other social scientists
Total, all areas	137,483	86,386	8,836	27,836	14,715	84,140	116,100	46,966	22,993	46,142
Alabama	2,223	1,335	161	503	224	932	1,024	180	276	567
Alaska	794	471	-	279	43	116	312	63	141	109
Arizona	1,065	537	151	236	140	1,055	1,164	405	175	585
Arkansas	937	638	-	279	20	716	772	263	39	470
California	14,225	9,391	1,189	2,339	1,326	11,652	12,356	4,485	2,911	4,933
Colorado	2,388	1,463	230	506	189	1,400	1,775	655	477	643
Connecticut	1,732	831	210	306	385	1,741	2,703	1,039	1,125	536
Delaware	456	267	63	70	56	136	260	63	54	144
Dist. of Columbia	1,639	1,046	109	318	167	880	8,140	5,541	526	2,074
Florida	4,124	2,586	100	1,075	363	1,627	2,378	583	575	1,221
Georgia	3,853	2,393	183	851	426	1,504	2,053	525	806	722
Hawaii	836	531	19	167	118	289	471	124	63	284
Idaho	1,490	1,034	-	435	21	290	289	86	25	178
Illinois	4,840	3,349	516	380	595	4,855	6,152	2,780	788	2,596
Indiana	2,412	1,183	261	543	425	1,396	2,566	1,313	185	1,071
Iowa	2,498	1,264	43	746	445	976	1,012	357	75	581
Kansas	1,245	712	-	481	52	717	1,115	24	313	778
Kentucky	1,464	1,178	31	218	39	324	1,049	606	35	406
Louisiana	2,051	1,398	21	570	62	794	876	199	512	165
Maine	1,199	932	17	251	-	358	524	121	378	27
Maryland	3,796	2,449	410	333	604	2,200	2,901	859	497	1,545
Massachusetts	3,425	2,258	440	105	622	3,969	5,621	2,185	1,110	2,326
Michigan	3,758	2,378	414	541	424	2,091	4,408	1,680	615	2,113
Minnesota	2,722	1,597	105	864	156	1,852	2,397	813	803	782
Mississippi	1,563	1,114	-	321	128	68	476	192	25	259
Missouri	2,551	1,786	166	297	302	1,575	1,028	251	331	446
Montana	1,488	1,135	-	223	130	489	285	156	129	-
Nebraska	950	322	193	371	64	690	337	289	36	12
Nevada	663	414	109	109	31	256	216	23	193	-
New Hampshire	329	178	-	21	130	406	713	268	390	54
New Jersey	4,994	3,081	255	970	687	2,020	3,942	1,940	637	1,365
New Mexico	699	459	29	168	43	583	361	93	243	24
New York	10,587	5,793	1,746	1,542	1,506	10,199	13,096	5,234	2,796	5,066
North Carolina	2,576	1,768	86	404	318	1,534	2,265	1,039	546	700
North Dakota	730	430	21	126	152	302	712	121	24	568
Ohio	4,817	2,768	452	1,182	415	3,444	3,830	1,787	658	1,387
Oklahoma	1,428	699	119	549	62	710	591	191	136	264
Oregon	4,140	3,145	10	872	113	764	1,664	953	226	482
Pennsylvania	5,962	3,193	639	1,451	680	4,378	5,295	2,075	814	2,406
Rhode Island	302	262	9	10	21	758	630	130	117	383
South Carolina	1,295	691	130	445	29	318	612	395	200	218
South Dakota	378	238	-	130	10	155	336	154	121	64
Tennessee	2,707	1,721	99	775	112	1,556	857	121	463	273
Texas	7,102	4,014	266	1,911	912	2,704	4,083	1,452	853	1,778
Utah	1,070	953	21	52	43	402	396	104	178	118
Vermont	642	559	-	25	58	64	350	109	12	230
Virginia	3,759	2,071	196	1,106	384	2,273	3,216	1,252	150	1,815
Washington	4,458	2,934	159	763	601	1,653	1,517	584	204	729
West Virginia	1,072	742	-	239	90	128	341	156	12	173
Wisconsin	2,757	1,682	156	762	157	1,413	2,153	706	491	956
Wyoming	487	280	-	90	117	122	256	121	12	124
Other[1]	2,807	1,652	111	529	514	2,400	3,995	2,112	518	1,365

NOTE: Detail may not add to total due to rounding.

[1] Includes outlying areas of the U.S., foreign countries, and Not Reported.

Source: National Science Foundation.

Table B-39. Number of Employed Scientists and Engineers by State of Employment and

State	Total	Federal Agency of Support										
		Total with support[2]	AID	Agri-culture	Commerce	Defense	Energy	Education	HHS	HUD	Interior	Justice
Total, all areas	1,758,344	498,828	3,039	33,867	11,036	227,383	57,356	15,318	46,831	8,830	18,225	3,013
Alabama	20,840	8,424	113	620	187	3,390	302	182	906	154	193	11
Alaska	2,971	1,293	-	238	159	130	50	34	148	-	362	-
Arizona	17,980	5,452	-	367	18	2,884	455	-	522	34	451	12
Arkansas	7,169	1,795	-	510	-	441	58	12	109	-	122	-
California	235,593	91,492	723	2,142	856	55,055	11,352	2,940	5,959	807	1,732	311
Colorado	35,594	12,278	-	689	643	4,161	2,587	239	964	102	2,091	-
Connecticu	37,439	8,942	12	218	189	5,150	675	306	952	273	88	36
Delaware	6,483	816	-	88	109	430	134	-	44	30	15	12
Dist. of Columbia	25,044	17,213	175	1,269	864	4,367	1,078	98	1,090	169	437	607
Florida	43,148	16,474	30	821	377	8,918	635	262	396	170	310	-
Georgia	28,456	7,528	79	693	70	2,861	284	241	1,403	244	138	46
Hawaii	6,902	3,134	-	164	48	1,821	277	136	137	73	99	-
Idaho	6,181	3,521	-	835	52	331	1,193	64	34	213	543	-
Illinois	78,912	12,305	42	661	98	2,858	2,090	786	1,362	234	120	206
Indiana	30,073	6,601	123	468	45	2,524	346	506	324	211	214	-
Iowa	[illegible]	3,599	80	846	-	1,231	148	540	640	86	143	121
Kansas	[illegible]	3,525	-	407	18	1,632	53	255	665	-	-	-
Kentucky	[illegible]	2,422	-	512	68	563	494	21	283	148	379	-
Louisiana	21,478	3,717	-	469	248	726	123	37	539	34	426	-
Maine	5,611	2,054	109	294	333	674	34	152	64	78	249	-
Maryland	45,229	26,678	155	622	2,129	14,699	1,241	77	4,219	287	365	254
Massachusetts	66,000	21,559	56	160	459	12,079	1,890	753	2,557	340	444	59
Michigan	65,433	8,803	-	414	21	2,801	656	630	1,472	187	120	-
Minnesota	31,597	6,287	-	892	92	2,768	77	142	476	255	215	13
Mississippi	8,509	3,225	-	514	93	1,649	235	189	138	44	33	-
Missouri	32,583	11,536	109	910	124	6,279	1,540	310	1,149	398	170	12
Montana	4,112	2,073	-	819	16	34	86	109	236	-	412	64
Nebraska	7,280	1,983	109	440	-	496	120	186	316	68	137	-
Nevada	3,739	1,598	-	176	-	203	364	-	85	8	413	-
New Hampshire	7,740	1,689	-	86	15	1,032	56	-	275	68	21	-
New Jersey	72,429	14,216	30	360	292	7,552	2,074	463	895	249	130	119
New Mexico	10,361	7,213	18	367	34	2,415	4,371	-	178	70	364	54
New York	137,216	31,022	351	1,456	394	13,644	3,573	1,539	4,564	915	492	18
North Carolina	29,722	5,943	45	776	177	1,429	253	180	1,212	86	130	55
North Dakota	3,276	1,010	21	194	54	68	34	34	293	143	107	-
Ohio	80,469	18,627	52	474	116	9,451	2,084	592	1,437	249	374	21
Oklahoma	19,445	3,571	-	370	306	1,502	321	225	206	136	227	-
Oregon	18,312	5,272	-	1,659	190	632	885	63	666	143	738	-
Pennsylvania	85,476	19,827	222	1,639	320	7,969	3,079	588	2,910	354	783	237
Rhode Island	5,586	2,016	-	21	215	1,312	51	-	217	68	89	-
South Carolina	13,816	3,532	21	514	71	1,257	881	199	234	109	195	-
South Dakota	2,692	1,139	-	122	-	151	37	-	64	-	210	-
Tennessee	25,223	8,914	12	722	70	1,536	4,079	106	548	102	263	18
Texas	110,194	23,120	95	1,719	296	11,162	1,002	338	1,548	443	602	43
Utah	11,570	5,021	-	865	86	2,540	610	116	282	52	494	64
Vermont	3,807	835	-	324	-	224	46	18	64	-	3	-
Virginia	40,420	10,832	24	1,478	234	11,637	942	678	1,187	153	1,165	241
Washington	42,303	16,389	109	950	566	7,298	3,535	366	1,677	416	803	130
West Virginia	7,654	1,699	-	511	-	330	168	64	192	34	135	20
Wisconsin	30,153	4,757	12	875	34	522	150	321	786	52	196	211
Wyoming	3,576	1,164	-	485	-	60	370	-	-	-	89	-
Other[1]	80,848	5,704	113	334	248	2,504	478	216	205	182	210	18

NOTE: Detail may not add to total due to rounding.

[1] Includes outlying areas of the U.S., foreign countries, and Not Reported.

[2] Sum of support agencies may exceed total with support due to multiple responses.

[3] Includes agency not reported.

Source: National Science Foundation.

Federal Agency of Support: 1982

Federal Agency of Support -continued								No Federal support	Support not known	Support not reported	
Labor	Transportation	EPA	NASA	NSF	Nuclear Regulatory Commission	Other agency	Agency unknown[2]				
4,973	**40,405**	**29,369**	**46,628**	**17,911**	**6,936**	**15,436**	**7,799**	**1,116,627**	**86,079**	**78,801**	**Total, all areas**
117	463	1,100	1,715	224	36	311	130	11,574	670	172	Alabama
-	170	44	52	52	-	48	18	1,491	58	129	Alaska
-	302	132	715	246	127	80	102	11,254	873	400	Arizona
-	256	160	-	109	-	76	-	4,804	306	64	Arkansas
512	4,584	2,502	14,159	3,133	1,166	1,728	1,440	130,842	6,997	4,263	California
197	673	579	1,499	553	36	163	233	21,857	[illegible]	391	Colorado
117	545	436	1,628	254	155	292	62	26,521	1,527	449	Connecticut
-	67	35	109	-	-	-	-	5,244	306	117	Delaware
854	1,846	746	218	170	228	3,336	133	6,520	479	832	Dist. of Columbia
10	1,295	1,066	3,263	600	110	306	377	24,436	1,532	706	Florida
197	794	607	331	252	120	176	109	19,897	717	316	Georgia
-	200	252	45	228	-	-	11	3,547	153	69	Hawaii
-	259	290	-	58	381	12	-	2,562	89	10	Idaho
27	1,746	1,356	222	736	185	417	573	59,787	5,016	1,803	Illinois
72	871	395	459	1,124	-	119	76	21,583	1,849	239	Indiana
30	271	136	186	247	127	34	-	9,962	1,095	55	Iowa
9	378	132	68	46	-	34	52	8,624	493	62	Kansas
36	410	160	-	20	-	43	24	10,130	469	234	Kentucky
36	484	245	586	109	8	55	16	16,830	636	293	Louisiana
64	120	266	34	68	-	15	-	3,387	160	9	Maine
86	1,361	771	2,758	126	496	364	39	16,751	878	923	Maryland
112	1,777	1,683	1,795	1,110	229	599	302	42,897	2,842	710	Massachusetts
64	1,069	890	160	685	34	144	309	53,453	2,172	1,006	Michigan
-	776	488	437	188	18	215	110	23,691	1,068	551	Minnesota
11	206	222	186	127	34	130	21	4,611	472	202	Mississippi
169	467	719	316	437	110	283	216	16,725	1,469	656	Missouri
-	312	80	-	127	36	64	34	1,844	34	182	Montana
-	203	229	-	167	-	21	42	4,021	506	171	Nebraska
-	231	189	-	12	34	43	-	2,122	16	-	Nevada
-	102	89	68	201	-	34	-	5,706	219	125	New Hampshire
260	1,325	960	1,031	460	-	347	186	54,305	2,643	1,266	New Jersey
-	222	114	277	139	734	45	27	2,820	242	86	New Mexico
853	3,882	2,322	1,850	1,450	306	811	616	97,336	7,554	1,304	New York
-	706	782	230	163	34	139	177	22,377	904	496	North Carolina
-	143	92	-	-	-	-	-	2,054	111	101	North Dakota
57	1,576	1,960	1,280	681	412	556	182	57,181	3,629	1,032	Ohio
-	507	173	163	55	-	96	109	15,059	654	162	Oklahoma
12	536	446	66	164	-	64	73	12,110	493	436	Oregon
200	1,601	970	1,136	1,096	450	475	235	61,502	3,161	987	Pennsylvania
-	70	187	34	109	-	42	-	3,400	170	-	Rhode Island
-	170	381	-	11	109	-	109	9,177	652	455	South Carolina
-	341	136	68	66	-	10	36	1,361	65	127	South Dakota
49	259	465	264	58	357	1,242	254	15,574	422	312	Tennessee
104	1,593	1,201	5,253	279	68	840	509	82,320	2,871	1,883	Texas
155	405	166	366	253	34	-	-	6,025	434	89	Utah
-	34	80	-	-	-	8	34	2,617	86	88	Vermont
432	1,503	891	1,599	381	122	870	54	19,183	1,106	299	Virginia
12	1,699	301	1,155	660	607	262	321	24,192	1,003	719	Washington
-	203	59	34	110	34	34	-	5,617	304	34	West Virginia
73	626	1,000	102	298	-	119	232	23,422	873	1,101	Wisconsin
-	146	34	-	18	-	-	21	2,144	256	12	Wyoming
48	396	566	705	152	-	329	164	21,161	1,275	52,507	Other

Table B-40. Median Annual Salary of Employed Scientists and Engineers by State of Employment and Field: 1982

State	Total	Physical scientists				Mathematical scientists			Computer specialists	Environmental scientists			
		Total	Chemists	Physicists/ astronmrs.	Other physical scientists	Total	Mathema- ticians	Statis- ticians		Total	Earth scientists	Oceanog- raphers	Atmos- pheric scientists
Total, all areas	$36,300	$38,400	$36,100	$40,700	$37,200	$36,900	$37,800	$34,200	$32,800	$39,800	$40,800	$35,200	$36,500
Alabama	33,500	35,200	**	**	**	**	**	**	25,600	**	**	**	**
Alaska	48,900	**	**	**	**	**	**	**	**	**	**	**	**
Arizona	34,300	**	**	**	**	**	**	**	32,200	**	**	**	**
Arkansas	32,000	**	**	**	**	**	**	**	**	**	**	**	**
California	38,300	40,700	38,000	45,500	39,400	43,700	46,600	39,000	36,000	36,900	39,000	**	39,600
Colorado	38,800	32,800	**	**	**	32,700	**	**	32,500	48,100	48,600	**	**
Connecticut	33,700	37,500	35,500	**	**	33,100	34,000	**	33,600	**	**	**	**
Delaware	40,900	46,900	46,500	**	**	**	**	**	**	**	**	**	**
Dist. of Columbia	40,800	41,300	**	**	**	40,300	**	34,700	36,000	**	**	**	**
Florida	32,900	32,400	30,600	**	**	29,600	**	**	29,900	**	**	**	**
Georgia	34,100	35,800	35,000	**	**	**	**	**	33,300	**	**	**	**
Hawaii	30,500	**	**	**	**	**	**	**	30,000	**	**	**	**
Idaho	30,700	**	**	**	**	**	**	**	**	**	**	**	**
Illinois	34,100	34,000	34,200	**	**	32,400	32,400	**	34,200	30,300	**	**	**
Indiana	32,200	32,100	33,100	**	**	**	**	**	30,400	**	**	**	**
Iowa	32,500	**	**	**	**	**	**	**	**	**	**	**	**
Kansas	31,600	**	**	**	**	**	**	**	**	34,500	35,000	**	**
Kentucky	30,900	**	**	**	**	**	**	**	**	**	**	**	**
Louisiana	38,300	31,000	**	**	**	**	**	**	28,700	45,400	46,400	**	**
Maine	29,900	**	**	**	**	**	**	**	**	**	**	**	**
Maryland	38,900	38,500	35,100	38,500	**	41,200	42,100	40,200	35,900	35,900	**	**	37,200
Massachusetts	36,400	41,000	36,500	44,500	**	40,700	40,800	**	33,000	28,800	**	**	**
Michigan	35,000	35,000	32,900	**	**	32,800	33,000	**	30,600	**	**	**	**
Minnesota	34,800	39,300	38,300	**	**	43,700	**	**	30,100	**	**	**	**
Mississippi	31,000	**	**	**	**	**	**	**	**	36,300	**	**	**
Missouri	32,400	31,200	29,900	**	**	30,800	**	**	30,100	34,200	**	**	**
Montana	28,200	**	**	**	**	**	**	**	**	**	**	**	**
Nebraska	30,200	**	**	**	**	**	**	**	29,000	**	**	**	**
Nevada	30,500	**	**	**	**	**	**	**	**	**	**	**	**
New Hampshire	32,100	**	**	**	**	**	**	**	30,400	**	**	**	**
New Jersey	37,300	37,000	36,100	37,000	39,100	42,200	42,100	**	34,900	**	**	**	**
New Mexico	38,200	46,400	**	**	**	**	**	**	**	35,900	36,600	**	**
New York	35,900	37,200	35,700	44,500	**	37,800	40,200	36,000	34,400	42,800	40,900	**	**
North Carolina	32,300	36,400	31,800	**	**	34,300	32,900	**	31,100	**	**	**	**
North Dakota	29,800	**	**	**	**	**	**	**	**	**	**	**	**
Ohio	33,200	36,200	33,400	**	**	36,200	36,300	**	30,700	**	**	**	**
Oklahoma	38,900	39,000	37,500	**	**	**	**	**	30,600	47,600	51,200	**	**
Oregon	30,500	**	**	**	**	**	**	**	28,000	**	**	**	**
Pennsylvania	34,900	35,500	35,500	**	**	38,000	42,400	**	31,300	31,300	31,100	**	**
Rhode Island	30,500	**	**	**	**	**	**	**	**	**	**	**	**
South Carolina	32,700	**	**	**	**	**	**	**	**	**	**	**	**
South Dakota	30,100	**	**	**	**	**	**	**	**	**	**	**	**
Tennessee	32,200	39,400	39,100	**	**	33,200	**	**	29,700	**	**	**	**
Texas	38,000	37,600	38,600	40,300	**	34,000	36,500	**	35,100	53,300	54,400	**	**
Utah	33,800	**	**	**	**	**	**	**	**	33,200	**	**	**
Vermont	30,400	**	**	**	**	**	**	**	**	**	**	**	**
Virginia	35,400	36,000	31,900	**	**	33,200	33,200	**	34,500	42,900	47,300	**	**
Washington	34,600	33,800	33,500	**	**	35,600	**	**	30,800	29,300	30,300	**	**
West Virginia	34,500	**	**	**	**	**	**	**	**	**	**	**	**
Wisconsin	31,000	29,400	33,000	**	**	**	**	**	29,600	**	**	**	**
Wyoming	36,800	**	**	**	**	**	**	**	**	**	**	**	**
Other[1]	32,200	36,600	**	**	**	**	**	**	35,300	40,800	38,800	**	**

See Footnotes at end of Table

Table B-40. Median Annual Salary of Employed Scientists and Engineers by State of Employment and Field: 1982—continued

State	Engineers											
	Total	Aero-nautical/ Astro.	Chemical	Civil	Electrical/ electronic	Industrial	Materials	Mechanicals	Mining	Nuclear	Petroleum	Other
Total, all areas	$36,100	$39,900	$40,800	$33,900	$36,900	$32,200	$37,500	$36,800	$40,800	$40,300	$50,700	$36,000
Alabama	36,000	38,700	**	33,800	30,200	32,000	**	37,200	**	**	**	33,700
Alaska	56,400	**	**	**	**	**	**	**	**	**	**	**
Arizona	35,300	**	**	32,000	36,800	**	**	34,900	**	**	**	34,000
Arkansas	33,700	**	**	**	33,800	**	**	**	**	**	**	**
California	39,100	40,700	42,100	36,700	39,200	36,300	41,000	40,700	**	44,500	42,500	36,800
Colorado	39,400	40,100	42,000	33,800	38,700	**	**	40,000	41,800	**	55,400	36,700
Connecticut	34,600	41,200	43,600	30,800	33,200	30,400	35,700	35,700	**	**	**	33,800
Delaware	44,300	**	53,100	**	**	**	**	42,900	**	**	**	**
Dist. of Columbia	42,300	**	**	45,100	40,900	**	**	42,100	**	**	**	43,200
Florida	34,900	36,000	36,700	34,700	35,700	30,900	**	34,900	**	**	**	31,700
Georgia	34,500	37,600	**	32,700	33,400	36,500	**	35,200	**	**	**	33,800
Hawaii	32,500	**	**	30,200	36,400	**	**	**	**	**	**	30,200
Idaho	33,100	**	**	**	**	**	**	**	**	**	**	31,900
Illinois	34,700	**	33,000	36,200	34,500	30,700	35,800	36,300	**	**	**	33,200
Indiana	32,300	**	**	29,100	34,800	30,600	**	32,700	**	**	**	30,800
Iowa	35,400	**	**	33,300	33,900	30,900	**	38,800	**	**	**	36,000
Kansas	32,200	33,500	**	31,400	30,900	27,000	**	36,000	**	**	**	33,300
Kentucky	33,000	**	33,700	30,000	33,300	35,600	**	34,200	**	**	**	31,500
Louisiana	37,700	**	40,100	36,800	33,500	**	**	38,100	**	**	45,400	33,900
Maine	29,900	**	**	**	**	**	**	**	**	**	**	28,200
Maryland	38,500	40,700	43,300	35,400	38,500	**	**	39,100	**	**	**	37,400
Massachusetts	36,000	49,200	38,400	31,600	36,700	32,400	**	39,100	**	**	**	34,900
Michigan	35,600	**	40,400	32,900	35,000	32,800	36,600	36,200	**	**	**	35,200
Minnesota	35,800	**	40,700	36,500	35,600	34,000	**	36,900	**	**	**	35,300
Mississippi	30,600	**	**	32,600	29,800	**	**	**	**	**	**	30,900
Missouri	33,700	37,500	41,700	33,300	35,000	30,500	**	33,000	**	**	**	30,900
Montana	32,000	**	**	**	**	**	**	**	**	**	**	**
Nebraska	32,300	**	**	32,400	**	**	**	**	**	**	**	28,000
Nevada	32,000	**	**	**	**	**	**	**	**	**	**	**
New Hampshire	32,500	**	**	**	35,100	**	**	33,200	**	**	**	29,800
New Jersey	38,600	39,500	42,600	36,400	39,900	42,400	34,000	38,600	**	**	**	36,500
New Mexico	38,400	**	**	38,200	36,600	**	**	40,100	**	**	**	37,000
New York	37,100	42,100	40,900	34,500	40,000	34,000	36,200	36,600	**	**	**	38,000
North Carolina	33,400	**	36,200	30,700	36,100	31,700	**	33,200	**	**	**	30,400
North Dakota	34,000	**	**	**	**	**	**	**	**	**	**	**
Ohio	34,300	40,000	41,100	32,100	33,500	31,000	40,600	35,300	**	**	**	31,500
Oklahoma	38,200	**	40,600	36,400	36,800	**	**	40,700	**	**	49,400	38,100
Oregon	31,500	**	**	31,200	34,000	**	**	33,100	**	**	**	30,200
Pennsylvania	35,800	36,700	40,200	34,400	35,400	31,200	38,200	38,500	**	40,800	**	34,800
Rhode Island	30,700	**	**	**	32,100	**	**	**	**	**	**	**
South Carolina	34,300	**	38,500	34,900	28,600	28,500	**	36,100	**	**	**	34,200
South Dakota	26,700	**	**	**	**	**	**	**	**	**	**	**
Tennessee	32,900	**	39,700	35,200	32,400	30,000	**	33,700	**	**	**	32,600
Texas	39,100	39,500	44,200	35,200	37,800	32,600	40,400	40,600	**	**	53,100	36,800
Utah	36,400	**	**	32,900	35,300	**	**	**	**	**	**	35,500
Vermont	31,300	**	**	**	**	**	**	**	**	**	**	**
Virginia	35,400	45,700	38,900	34,300	40,100	28,300	**	33,200	**	**	**	35,000
Washington	35,300	37,600	35,200	31,200	36,700	33,800	**	35,700	**	**	**	34,400
West Virginia	35,600	**	39,300	**	**	**	**	**	**	**	**	**
Wisconsin	32,400	**	**	30,600	34,000	27,600	**	34,000	**	**	**	31,100
Wyoming	38,200	**	**	**	**	**	**	**	**	**	**	**
Other[1]	34,700	**	42,500	27,500	32,900	40,100	**	36,300	**	**	**	30,500

See Footnotes at end of Table

Table B-40. Median Annual Salary of Employed Scientists and Engineers by State of Employment and Field: 1982--continued

State	Life scientists					Psychologists	Social scientists			
	Total	Biologists	Biochemists	Agricultural scientists	Medical scientists		Total	Economists	Sociologists/ anthropolgists.	Other social scientists
Total, all areas	$30,800	[illegible]	$34,400	$31,100	$41,900	$30,500	$34,300	$40,000	$28,400	$31,000
Alabama	30,700	24,900	**	**	**	**	**	**	**	**
Alaska	35,400	32,800	**	**	**	**	**	**	**	**
Arizona	35,500	**	**	**	**	**	30,900	**	**	**
Arkansas	24,200	24,200	**	**	**	**	**	**	**	**
California	32,800	32,000	36,400	30,600	41,900	35,300	36,300	40,400	28,800	32,800
Colorado	29,600	30,300	**	**	**	26,100	28,800	**	**	**
Connecticut	37,400	32,200	**	**	**	27,900	30,200	29,900	**	**
Delaware	37,800	**	**	**	**	**	**	**	**	**
Dist. of Columbia	42,200	42,200	**	**	**	35,500	42,500	44,100	33,300	42,400
Florida	30,000	30,000	**	28,900	**	33,000	30,500	36,600	**	**
Georgia	33,900	30,700	**	**	**	**	25,500	**	**	**
Hawaii	30,200	26,500	**	**	**	**	**	**	**	**
Idaho	29,400	27,100	**	**	**	**	**	**	**	**
Illinois	32,300	32,100	**	**	**	30,500	36,800	49,200	32,600	27,600
Indiana	36,000	32,400	**	**	**	**	32,600	**	**	**
Iowa	29,700	24,600	**	**	**	**	26,900	**	**	**
Kansas	30,700	**	**	**	**	**	**	**	**	**
Kentucky	25,300	24,900	**	**	**	**	**	**	**	**
Louisiana	30,200	29,700	**	**	**	**	**	**	**	**
Maine	29,400	28,800	**	**	**	**	**	**	**	**
Maryland	33,200	30,000	35,200	**	42,700	31,200	34,900	35,800	**	34,900
Massachusetts	28,800	27,400	**	**	**	30,100	32,900	36,300	37,300	31,400
Michigan	34,300	34,000	**	**	37,900	33,300	34,400	42,400	**	30,900
Minnesota	27,900	25,100	**	30,700	**	34,200	36,200	34,700	29,000	**
Mississippi	31,800	31,400	**	**	**	**	**	**	**	**
Missouri	30,200	30,000	**	**	**	24,400	25,900	**	**	**
Montana	26,500	28,800	**	**	**	**	**	**	**	**
Nebraska	28,600	**	**	**	**	**	**	**	**	**
Nevada	**	**	**	**	**	**	**	**	**	**
New Hampshire	**	**	**	**	**	**	**	**	**	**
New Jersey	34,700	32,300	**	**	**	26,900	40,200	52,700	**	**
New Mexico	30,600	30,600	**	**	**	**	**	**	**	**
New York	33,300	32,000	34,900	32,300	42,600	31,000	36,800	40,800	30,000	40,000
North Carolina	27,800	27,300	**	**	**	30,100	27,900	**	**	**
North Dakota	35,100	**	**	**	**	**	**	**	**	**
Ohio	30,300	28,400	**	**	**	30,100	31,200	31,600	35,200	**
Oklahoma	37,400	**	**	**	**	**	**	**	**	**
Oregon	25,600	25,700	**	25,300	**	**	38,500	40,400	**	**
Pennsylvania	32,100	30,600	**	32,100	39,000	26,400	31,900	40,700	**	30,400
Rhode Island	**	**	**	**	**	**	**	**	**	**
South Carolina	27,000	25,600	**	**	**	**	**	**	**	**
South Dakota	**	**	**	**	**	**	**	**	**	**
Tennessee	27,500	25,200	**	**	**	29,500	20,100	**	**	**
Texas	30,800	29,500	**	32,200	42,500	35,000	36,100	38,500	**	38,300
Utah	27,500	27,400	**	**	**	**	**	**	**	**
Vermont	**	**	**	**	**	**	**	**	**	**
Virginia	32,400	32,900	**	**	**	35,700	41,100	46,700	**	38,400
Washington	39,300	39,200	**	30,600	**	**	37,300	**	**	**
West Virginia	24,500	**	**	**	**	**	**	**	**	**
Wisconsin	26,100	27,400	**	**	**	**	27,300	**	**	**
Wyoming	**	**	**	**	**	**	**	**	**	**
Other[1]	25,200	21,300	**	**	**	**	24,000	24,400	**	**

**Fewer than 20 sample cases reported.

[1] Includes outlying areas of the U.S., foreign countries, and Not Reported.

Source: National Science Foundation.

Table B-41. Number of Hispanic Scientists and Engineers by Field, Sex, and Employment Status: 1982

Field and Sex	Total	Employed									Unem- ployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Total, all fields	42,409	39,833	35,327	4,506	38,493	34,129	4,365	1,340	1,199	141	774	1,852	1,083	768
Male	37,873	36,049	31,977	4,072	35,169	31,207	3,962	880	770	110	536	1,286	1,061	225
Female	4,536	3,784	3,351	433	3,324	2,922	402	460	429	31	237	586	22	543
Physical scientists	2,505	1,950	1,908	43	1,950	1,908	43	-	-	-	67	488	229	259
Male	1,968	1,623	1,603	21	1,623	1,603	21	-	-	-	58	287	229	58
Female	537	327	305	22	327	305	22	-	-	-	9	201	-	201
Chemists	1,234	1,108	1,086	22	1,108	1,086	22	-	-	-	67	58	-	58
Male	937	820	820	-	820	820	-	-	-	-	58	58	-	58
Female	297	288	266	22	288	266	22	-	-	-	9	-	-	-
Physicists / astronomers	998	569	557	11	569	557	11	-	-	-	-	429	229	201
Male	781	552	540	11	552	540	11	-	-	-	-	229	229	-
Female	217	17	17	-	17	17	-	-	-	-	-	201	-	201
Other physical scientists	273	273	264	9	273	264	9	-	-	-	-	-	-	-
Male	251	251	242	9	251	242	9	-	-	-	-	-	-	-
Female	22	22	22	-	22	22	-	-	-	-	-	-	-	-
Mathematical scientists	1,208	1,012	941	71	895	824	71	117	117	-	-	196	-	196
Male	696	678	639	39	678	639	39	-	-	-	-	18	-	18
Female	512	334	303	32	217	185	32	117	117	-	-	178	-	178
Mathematicians	965	770	730	40	770	730	40	-	-	-	-	196	-	196
Male	603	586	568	18	586	568	18	-	-	-	-	18	-	18
Female	362	184	152	32	184	152	32	-	-	-	-	178	-	178
Statisticians	243	243	221	21	126	104	21	117	117	-	-	-	-	-
Male	93	93	71	21	93	71	21	-	-	-	-	-	-	-
Female	150	150	150	-	33	33	-	117	117	-	-	-	-	-
Computer specialists	3,014	3,014	2,226	788	2,993	2,205	788	20	20	-	-	-	-	-
Male	2,554	2,554	1,904	651	2,534	1,883	651	20	20	-	-	-	-	-
Female	459	459	322	137	459	322	137	-	-	-	-	-	-	-
Environmental scientists	593	584	576	9	563	554	9	22	22	-	-	9	-	9
Male	541	532	524	9	514	506	9	18	18	-	-	9	-	9
Female	52	52	52	-	48	48	-	4	4	-	-	-	-	-
Earth scientists	528	519	510	9	501	492	9	18	18	-	-	9	-	9
Male	496	487	478	9	469	460	9	18	18	-	-	9	-	9
Female	32	32	32	-	32	32	-	-	-	-	-	-	-	-
Oceanographers	22	22	22	-	18	18	-	4	4	-	-	-	-	-
Male	18	18	18	-	18	18	-	-	-	-	-	-	-	-
Female	4	4	4	-	-	-	-	4	4	-	-	-	-	-
Atmospheric scientists	44	44	44	-	44	44	-	-	-	-	-	-	-	-
Male	27	27	27	-	27	27	-	-	-	-	-	-	-	-
Female	17	17	17	-	17	17	-	-	-	-	-	-	-	-
Engineers	27,236	25,793	23,999	1,795	25,184	23,477	1,707	610	522	88	436	1,005	732	273
Male	26,327	25,080	23,353	1,728	24,479	22,839	1,640	601	514	88	383	863	724	140
Female	908	713	646	67	705	638	67	8	8	-	53	142	8	134
Aeronautical / Astronautical	792	792	714	78	784	706	78	8	8	-	-	-	-	-
Male	756	756	688	68	756	688	68	-	-	-	-	-	-	-
Female	36	36	26	10	28	18	10	8	8	-	-	-	-	-
Chemical	2,028	1,799	1,489	310	1,698	1,388	310	101	101	-	96	133	8	124
Male	1,768	1,680	1,410	270	1,579	1,309	270	101	101	-	88	-	-	-
Female	260	119	79	40	119	79	40	-	-	-	8	133	8	124
Civil	5,610	5,338	5,122	216	5,002	4,839	163	336	283	54	184	88	34	54
Male	5,499	5,236	5,020	216	4,900	4,737	163	336	283	54	175	88	34	54
Female	110	102	102	-	102	102	-	-	-	-	8	-	-	-
Electrical / Electronic	5,384	5,268	5,081	187	5,224	5,037	187	44	44	-	20	95	86	9
Male	5,260	5,174	4,995	179	5,130	4,951	179	44	44	-	-	86	86	-
Female	124	94	86	8	94	86	8	-	-	-	20	9	-	9

See Footnotes at end of Table

Table B-41. Number of Hispanic Scientists and Engineers by Field, Sex, and Employment Status: 1982—continued

Field and Sex	Total	Employed									Unemployed, seeking work	Not employed, not seeking		
		Total			Full-time			Part-time						
		Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E	Total	Sci./Eng.	Non-S/E		Total	Retired	Other
Industrial	1,766	1,697	1,562	136	1,697	1,562	136	-	-	-	-	68	34	34
Male	1,705	1,638	1,511	127	1,638	1,511	127	-	-	-	-	68	34	34
Female	60	60	51	8	60	51	8	-	-	-	-	-	-	-
Materials	283	147	147	-	147	147	-	-	-	-	17	119	101	18
Male	257	138	138	-	138	138	-	-	-	-	-	119	101	18
Female	26	9	9	-	9	9	-	-	-	-	17	-	-	-
Mechanical	4,686	4,491	3,885	606	4,491	3,885	606	-	-	-	52	143	109	34
Male	4,625	4,430	3,823	606	4,430	3,823	606	-	-	-	52	143	109	34
Female	62	62	62	-	62	62	-	-	-	-	-	-	-	-
Mining	36	36	36	-	36	36	-	-	-	-	-	-	-	-
Male	36	36	36	-	36	36	-	-	-	-	-	-	-	-
Female	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear	104	104	104	-	104	104	-	-	-	-	-	-	-	-
Male	104	104	104	-	104	104	-	-	-	-	-	-	-	-
Female	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum	527	426	392	34	392	392	-	34	-	34	-	101	101	-
Male	519	418	384	34	384	384	-	34	-	34	-	101	101	-
Female	8	8	8	-	8	8	-	-	-	-	-	-	-	-
Other	6,019	5,693	5,465	228	5,607	5,379	228	86	86	-	66	259	259	-
Male	5,797	5,470	5,242	228	5,384	5,156	228	86	86	-	66	259	259	-
Female	223	223	223	-	223	223	-	-	-	-	-	-	-	-
Life scientists	3,190	2,879	1,957	923	2,839	1,916	923	40	40	-	170	140	109	31
Male	2,231	2,089	1,301	788	2,080	1,292	788	9	9	-	33	109	109	-
Female	958	790	655	136	759	624	136	31	31	-	136	31	-	31
Biologists	1,822	1,621	1,115	505	1,580	1,075	505	40	40	-	170	31	-	31
Male	972	939	558	380	930	549	380	9	9	-	33	-	-	-
Female	850	682	557	125	651	526	125	31	31	-	136	31	-	31
Biochemists	321	321	287	34	321	287	34	-	-	-	-	-	-	-
Male	266	266	232	34	266	232	34	-	-	-	-	-	-	-
Female	56	56	56	-	56	56	-	-	-	-	-	-	-	-
Agricultural scientists	681	572	329	243	572	329	243	-	-	-	-	109	109	-
Male	669	560	317	243	560	317	243	-	-	-	-	109	109	-
Female	12	12	12	-	12	12	-	-	-	-	-	-	-	-
Medical scientists	365	365	225	140	365	225	140	-	-	-	-	-	-	-
Male	324	324	194	130	324	194	130	-	-	-	-	-	-	-
Female	41	41	31	10	41	31	10	-	-	-	-	-	-	-
Psychologists	896	886	825	61	631	601	31	255	224	31	9	-	-	-
Male	478	478	447	31	336	305	31	142	142	-	-	-	-	-
Female	418	408	378	31	296	296	-	113	82	31	9	-	-	-
Social scientists	3,819	3,714	2,897	817	3,437	2,643	796	276	254	22	92	14	14	-
Male	3,077	3,014	2,207	807	2,925	2,141	784	89	67	22	63	-	-	-
Female	742	699	689	10	512	502	10	187	187	-	29	14	14	-
Economists	1,623	1,532	1,054	478	1,489	1,033	456	44	21	22	77	14	14	-
Male	1,313	1,250	772	478	1,207	751	456	44	21	22	63	-	-	-
Female	310	282	282	-	282	282	-	-	-	-	14	14	14	-
Sociologists / anthropologists	607	592	581	11	568	557	11	24	24	-	15	-	-	-
Male	562	562	551	11	538	527	11	24	24	-	-	-	-	-
Female	45	30	30	-	30	30	-	-	-	-	15	-	-	-
Other social scientists	1,589	1,589	1,261	328	1,381	1,053	328	208	208	-	-	-	-	-
Male	1,202	1,202	884	318	1,181	863	318	21	21	-	-	-	-	-
Female	387	387	377	10	200	190	10	187	187	-	-	-	-	-

NOTE: Detail may not add to total due to rounding.

Source: National Science Foundation.

Table B-42. Number of Employed Hispanic Scientists and Engineers by Field, Sex, and Highest Degree: 1982

Field and Sex	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Total, all fields	49,833	4,317	221	10,607	30,105	911	34	3,638
Male	46,049	3,852	211	9,106	28,469	860	34	3,518
Female	3,784	465	10	1,501	1,636	51	-	120
Physical scientists	1,950	729	-	634	588	-	-	-
Male	1,623	673	-	577	373	-	-	-
Female	327	56	-	57	215	-	-	-
Chemists	1,106	331	-	274	503	-	-	-
Male	820	276	-	234	310	-	-	-
Female	286	55	-	40	193	-	-	-
Physicists / astronomers	569	265	-	293	11	-	-	-
Male	552	265	-	276	11	-	-	-
Female	17	-	-	17	-	-	-	-
Other physical scientists	273	133	-	67	73	-	-	-
Male	251	133	-	67	51	-	-	-
Female	22	-	-	-	22	-	-	-
Mathematical scientists	1,012	415	-	490	107	-	-	-
Male	678	415	-	209	54	-	-	-
Female	334	-	-	281	53	-	-	-
Mathematicians	770	397	-	334	39	-	-	-
Male	586	397	-	170	19	-	-	-
Female	184	-	-	164	20	-	-	-
Statisticians	243	18	-	156	69	-	-	-
Male	93	18	-	39	36	-	-	-
Female	150	-	-	117	33	-	-	-
Computer specialists	3,014	119	-	611	2,284	-	-	-
Male	2,554	119	-	533	1,902	-	-	-
Female	460	-	-	78	381	-	-	-
Environmental scientists	584	139	-	188	257	-	-	-
Male	532	136	-	171	225	-	-	-
Female	52	4	-	17	32	-	-	-
Earth scientists	519	118	-	163	239	-	-	-
Male	487	118	-	163	207	-	-	-
Female	32	-	-	-	32	-	-	-
Oceanographers	22	22	-	-	-	-	-	-
Male	18	18	-	-	-	-	-	-
Female	4	4	-	-	-	-	-	-
Atmospheric scientists	44	-	-	26	18	-	-	-
Male	27	-	-	9	18	-	-	-
Female	17	-	-	17	-	-	-	-
Engineers	25,793	741	45	5,953	14,472	911	34	3,638
Male	25,080	732	45	5,839	14,053	860	34	3,518
Female	713	9	-	114	418	51	-	120
Aeronautical / Astronautical	792	68	-	104	420	-	-	200
Male	756	68	-	104	394	-	-	190
Female	36	-	-	-	27	-	-	9
Chemical	1,799	170	-	451	1,039	-	-	140
Male	1,680	170	-	426	945	-	-	140
Female	119	-	-	25	94	-	-	-
Civil	5,338	18	-	1,358	3,333	104	-	524
Male	5,236	18	-	1,350	3,249	104	-	515
Female	102	-	-	8	84	-	-	9
Electrical / Electronic	5,268	70	45	1,332	2,833	259	34	696
Male	5,174	70	45	1,296	2,800	259	34	671
Female	94	-	-	36	33	-	-	25

See Footnotes at end of Table

Table B-42. Number of Employed Hispanic Scientists and Engineers by Field, Sex, and Highest Degree: 1982—continued

Field and Sex	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Industrial	1,697	-	-	486	953	18	-	240
Male	1,638	-	-	477	903	18	-	240
Female	60	-	-	9	50	-	-	-
Materials	147	34	-	-	114	-	-	-
Male	138	34	-	-	104	-	-	-
Female	9	-	-	-	9	-	-	-
Mechanical	4,491	127	-	906	2,852	104	-	502
Male	4,430	127	-	889	2,816	104	-	493
Female	62	-	-	17	36	-	-	9
Mining	36	-	-	-	36	-	-	-
Male	36	-	-	-	36	-	-	-
Female	-	-	-	-	-	-	-	-
Nuclear	104	-	-	18	52	34	-	-
Male	104	-	-	18	52	34	-	-
Female	-	-	-	-	-	-	-	-
Petroleum	426	-	-	52	374	-	-	-
Male	418	-	-	52	366	-	-	-
Female	8	-	-	-	8	-	-	-
Other	5,693	254	-	1,246	2,465	392	-	1,336
Male	5,470	245	-	1,227	2,389	340	-	1,269
Female	223	9	-	18	76	51	-	67
Life scientists	2,879	871	166	447	1,396	-	-	-
Male	2,090	612	156	374	948	-	-	-
Female	790	259	10	74	448	-	-	-
Biologists	1,621	493	-	183	945	-	-	-
Male	939	273	-	142	524	-	-	-
Female	682	220	-	41	421	-	-	-
Biochemists	321	249	-	21	51	-	-	-
Male	265	210	-	21	34	-	-	-
Female	56	39	-	-	17	-	-	-
Agricultural scientists	572	21	-	191	359	-	-	-
Male	560	21	-	180	359	-	-	-
Female	12	-	-	12	-	-	-	-
Medical scientists	365	107	166	52	40	-	-	-
Male	324	107	156	31	31	-	-	-
Female	41	-	10	21	10	-	-	-
Psychologists	886	346	-	388	152	-	-	-
Male	478	236	-	99	142	-	-	-
Female	408	110	-	289	9	-	-	-
Social scientists	3,714	958	11	1,894	851	-	-	-
Male	3,014	930	11	1,303	770	-	-	-
Female	699	28	-	591	80	-	-	-
Economists	1,533	379	11	867	276	-	-	-
Male	1,250	379	11	636	225	-	-	-
Female	282	-	-	231	52	-	-	-
Sociologists / anthropologists	592	336	-	38	218	-	-	-
Male	562	321	-	23	218	-	-	-
Female	30	15	-	15	-	-	-	-
Other social scientists	1,589	243	-	990	357	-	-	-
Male	1,202	230	-	644	328	-	-	-
Female	387	13	-	346	29	-	-	-

NOTE: Detail may not add to total due to rounding.
Source: National Science Foundation.

Table B-43. Number of Hispanic Scientists and Engineers by Field, Sex, and Highest Degree: 1982

Field and Sex	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Total, all fields	42,459	4,626	239	11,436	21,354	930	34	3,841
Male	37,873	4,127	229	9,563	19,321	878	34	3,721
Female	4,586	499	10	1,873	2,033	51	-	120
Physical scientists	2,506	957	-	834	714	-	-	-
Male	1,969	902	-	577	490	-	-	-
Female	537	55	-	257	224	-	-	-
Chemists	1,234	331	-	274	629	-	-	-
Male	937	276	-	234	427	-	-	-
Female	297	55	-	40	202	-	-	-
Physicists / astronomers	998	493	-	493	11	-	-	-
Male	781	493	-	276	11	-	-	-
Female	217	-	-	217	-	-	-	-
Other physical scientists	273	133	-	67	73	-	-	-
Male	251	133	-	67	51	-	-	-
Female	22	-	-	-	22	-	-	-
Mathematical scientists	1,208	415	-	508	285	-	-	-
Male	696	415	-	227	54	-	-	-
Female	512	-	-	281	231	-	-	-
Mathematicians	965	397	-	352	216	-	-	-
Male	603	397	-	188	19	-	-	-
Female	362	-	-	164	198	-	-	-
Statisticians	243	18	-	156	69	-	-	-
Male	93	18	-	39	36	-	-	-
Female	150	-	-	117	33	-	-	-
Computer specialists	3,014	119	-	611	2,284	-	-	-
Male	2,554	119	-	533	1,902	-	-	-
Female	459	-	-	78	381	-	-	-
Environmental scientists	593	139	-	188	266	-	-	-
Male	541	136	-	171	234	-	-	-
Female	52	4	-	17	32	-	-	-
Earth scientists	528	118	-	163	248	-	-	-
Male	496	118	-	163	216	-	-	-
Female	32	-	-	-	32	-	-	-
Oceanographers	22	22	-	-	-	-	-	-
Male	18	18	-	-	-	-	-	-
Female	4	4	-	-	-	-	-	-
Atmospheric scientists	44	-	-	26	18	-	-	-
Male	27	-	-	9	18	-	-	-
Female	17	-	-	17	-	-	-	-
Engineers	27,236	775	63	6,369	15,224	930	34	3,841
Male	26,327	766	63	6,220	14,646	878	34	3,721
Female	908	9	-	149	578	51	-	120
Aeronautical / Astronautical	792	68	-	104	420	-	-	200
Male	756	68	-	104	394	-	-	190
Female	36	-	-	-	27	-	-	9
Chemical	2,028	204	-	469	1,216	-	-	140
Male	1,768	204	-	426	998	-	-	140
Female	260	-	-	43	217	-	-	-
Civil	5,610	18	-	1,412	3,449	104	-	626
Male	5,499	18	-	1,404	3,356	104	-	617
Female	110	-	-	8	93	-	-	9
Electrical / Electronic	5,384	70	63	1,349	2,879	259	34	730
Male	5,260	70	63	1,295	2,834	259	34	705
Female	124	-	-	54	45	-	-	25

See Footnotes at end of Table

Table B-43. Number of Hispanic Scientists and Engineers by Field, Sex, and Highest Degree: 1982—continued

Field and Sex	Total	Doctorate	Professional/ Medical	Master's	Bachelor's	Associate	Other	No degree
Industrial	1,765	-	-	486	1,021	18	-	240
Male	1,705	-	-	477	970	18	-	240
Female	60	-	-	9	50	-	-	-
Materials	283	34	-	-	249	-	-	-
Male	257	34	-	-	224	-	-	-
Female	26	-	-	-	26	-	-	-
Mechanical	4,886	127	-	991	2,961	104	-	502
Male	4,825	127	-	975	2,925	104	-	493
Female	62	-	-	17	36	-	-	9
Mining	36	-	-	-	36	-	-	-
Male	36	-	-	-	36	-	-	-
Female	-	-	-	-	-	-	-	-
Nuclear	104	-	-	18	52	34	-	-
Male	104	-	-	18	52	34	-	-
Female	-	-	-	-	-	-	-	-
Petroleum	527	-	-	52	475	-	-	-
Male	519	-	-	52	467	-	-	-
Female	8	-	-	-	8	-	-	-
Other	6,019	254	-	1,486	2,465	410	-	1,404
Male	5,797	245	-	1,468	2,389	359	-	1,336
Female	223	9	-	18	76	51	-	67
Life scientists	3,190	593	166	602	1,529	-	-	-
Male	2,231	324	156	392	1,060	-	-	-
Female	959	269	10	210	470	-	-	-
Biologists	1,842	515	-	357	970	-	-	-
Male	992	285	-	180	527	-	-	-
Female	850	230	-	177	443	-	-	-
Biochemists	321	249	-	21	51	-	-	-
Male	265	210	-	21	34	-	-	-
Female	56	39	-	-	17	-	-	-
Agricultural scientists	681	21	-	191	469	-	-	-
Male	669	21	-	180	469	-	-	-
Female	12	-	-	12	-	-	-	-
Medical scientists	365	107	166	52	40	-	-	-
Male	324	107	156	31	31	-	-	-
Female	41	-	10	21	10	-	-	-
Psychologists	896	355	-	389	152	-	-	-
Male	478	236	-	99	142	-	-	-
Female	418	119	-	290	9	-	-	-
Social scientists	3,819	973	11	1,935	901	-	-	-
Male	3,077	930	11	1,343	793	-	-	-
Female	742	43	-	591	108	-	-	-
Economists	1,623	379	11	907	326	-	-	-
Male	1,313	379	11	677	247	-	-	-
Female	310	-	-	231	79	-	-	-
Sociologists / anthropologists	607	351	-	38	218	-	-	-
Male	562	321	-	23	218	-	-	-
Female	45	30	-	15	-	-	-	-
Other social scientists	1,589	243	-	990	357	-	-	-
Male	1,202	230	-	644	328	-	-	-
Female	387	13	-	346	29	-	-	-

NOTE: Detail may not add to total due to rounding.
Source: National Science Foundation.

reproduction of survey questionnaire

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NOTE: The questionnaire for the 1982 Postcensal Survey of Scientists and Engineers was titled "1982 National Survey of Natural and Social Scientists and Engineers."

O.M.B. No. 3145-0071: Approval Expires December 31, 1983

NOTICE — Your report to the Census Bureau is confidential by law (title 13, U.S. Code). It may be seen only by sworn Census employees and may be used only for statistical purposes.

FORM **SSE-20**
(2-22-82)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

1982 NATIONAL SURVEY OF NATURAL AND SOCIAL SCIENTISTS AND ENGINEERS

PLEASE COMPLETE AND RETURN TO

Bureau of the Census
ATTN: Current Projects Branch
1201 East Tenth Street
Jeffersonville, Indiana 47132

Please read instructions carefully before answering questions.

Answer as accurately as you can by printing your reply clearly or by entering an "X" in the box next to the appropriate reply.

If the instructions for a question direct you to enter a code and description from a list, please refer to the Reference List Guide that is enclosed.

001 1

IF YOU HAVE MOVED, or if there are errors in the address label above, please enter the correct information about your name and current residence below.

Name

Number and street

City or town

County 002

State or foreign country 003

ZIP code

FROM THE DIRECTOR
BUREAU OF THE CENSUS

One of our Nation's most valued resources is the highly trained and educated personnel in scientific, engineering, and other fields. Such individuals have provided much of the creativity and initiative that have contributed to United States development. It is essential that industry, academe, and government have current information about this valuable resource in order to plan for its effective development and use.

The National Science Foundation, the government agency responsible for the collection and dissemination of information concerning the Nation's science and engineering personnel, has asked the Bureau of the Census to conduct a survey of persons from a variety of occupations who have attained certain levels of education. The purpose of this survey is to obtain information about their education and training, employment and career development, and the relationship of their training to subsequent occupation. This information can be utilized in planning and analysis by private industry, industrial and trade associations, federal and state government agencies, and colleges and universities. For this survey to yield representative results, it is important that each person contacted in the survey complete and return this questionnaire.

Beginning on page 2, please answer the questions and return your questionnaire in the enclosed addressed envelope. For some questions, you are asked to enter a code and description from Reference List A, B, or C. This Reference List Guide is enclosed.

This information is being collected under the authority of the National Science Foundation Act of 1950, as amended (42 USC 1862). The information you provide is confidential and may be seen only by sworn Census Bureau employees. The information may be used only for statistical purposes and cannot be given to any other government agency, private concern, or individual. These data will be released only in the form of statistical summaries which will preclude the identification of any survey participant. Your response is entirely voluntary, and your failure to provide some or all of the requested information will in no way adversely affect you.

The National Science Foundation and the Census Bureau appreciate your cooperation.

Sincerely,

Bruce Chapman
BRUCE CHAPMAN

Enclosures

BEST COPY AVAILABLE

Part I — SOME FACTS ABOUT YOURSELF

1. Sex
101
1 ☐ Male
2 ☐ Female

2. Are you —
102
1 ☐ American Indian or Alaskan Native
2 ☐ Asian or Pacific Islander
3 ☐ Black
4 ☐ White
5 ☐ Other — *Specify* ________________

3. Are you of Spanish/Hispanic origin or descent?
103
2 ☐ No
1 ☐ Yes
104
1 ☐ Mexican-American
2 ☐ Puerto Rican
3 ☐ Other Hispanic

4. In what month and year were you born?
105 ☐☐ Month *(Enter two-digit month code in boxes, e.g. "01" for January, etc.)*
106 ☐☐ Year

5. As of May 9, 1982, what was your marital status?
107
1 ☐ Married
2 ☐ Widowed
3 ☐ Separated
4 ☐ Divorced
5 ☐ Never married

6. Did you have any children living with you as of May 9, 1982, who were — —

a. 6 — 17 years of age?
108
1 ☐ Yes
2 ☐ No

b. Under 6 years of age?
109
1 ☐ Yes
2 ☐ No

7a. Are you a U.S. citizen?
110
1 ☐ Yes — *SKIP to 8a*
2 ☐ No, non-U.S. citizen, immigrant (permanent resident) } *GO to b*
3 ☐ No, non-U.S. citizen, non-immigrant (temporary resident) } *GO to b*

b. If non-U.S. citizen, of which country are you a citizen?
111 ☐☐ *Specify country* ________________

8a. Are you physically handicapped?
112
1 ☐ Yes — *GO to b*
2 ☐ No — *SKIP to 9*

b. What is the nature of your handicap(s)?

Mark (X) all that apply.
113
1 ☐ Visual
2 ☐ Auditory
3 ☐ Ambulatory
4 ☐ Other — *Specify* ________________

Part II — EDUCATION AND TRAINING

9. How many years of formal education have you COMPLETED beyond high school?
114 ________ Years — *GO to 10*
0 ☐ None — *SKIP to 12a*

10. Beginning with the most recent and working back, list each institution beyond the high school level from which you have obtained or are obtaining formal training leading to an academic degree. Designate degrees by abbreviations, for example, AA, BS, BA, MS, Ph.D., LLB, MD, etc. Use a separate line for each degree granted or worked for, or for any change in major field of specialized study. Refer to List A on the enclosed Reference List Guide for the code numbers of major fields. Do NOT include correspondence courses, on-the-job training, apprenticeship, or training at an employer's training school; training of these types should be reported in question 12a. If you need more space, attach a separate sheet of paper and give the same type of information for each additional school.

College, university, or other post high school institution *Name, city, and State or foreign country*	Type of degree worked for, if any (AA, BS, etc.), or none	Year degree awarded	Major field *Enter code and description from Reference List A* — Code	Description
MOST RECENT ________________ ________________ 115 ☐☐☐	116 ________ OR 0 ☐ None	117 ☐☐☐ OR 0 ☐ None	118 ☐☐☐	
SECOND-TO-LAST ________________ ________________ 119 ☐☐☐	120 ________ OR 0 ☐ None	121 ☐☐☐ OR 0 ☐ None	122 ☐☐☐	
THIRD-TO-LAST ________________ ________________ 123 ☐☐☐	124 ________ OR 0 ☐ None	125 ☐☐☐ OR 0 ☐ None	126 ☐☐☐	
FOURTH-TO-LAST ________________ ________________ 127 ☐☐☐	128 ________ OR 0 ☐ None	129 ☐☐☐ OR 0 ☐ None	130 ☐☐☐	

Part II — EDUCATION AND TRAINING — Continued

11. If you are a student attending a college or university, mark your status.

132
1 ☐ Student, full-time
2 ☐ Student, part-time
3 ☐ Not currently a student

12a. Which of these kinds of training did you participate in during 1980 or 1981?

Mark (X) the appropriate year for each type of training you received.

1980	1981	KIND OF TRAINING
133	134	
1 ☐	1 ☐	Military training applicable to present civilian occupation
2 ☐	2 ☐	Extension or correspondence courses applicable to present civilian occupation
3 ☐	3 ☐	Courses at employer's training facility
4 ☐	4 ☐	Courses at adult education center
5 ☐	5 ☐	Courses presented in conjunction with professional meetings
6 ☐	6 ☐	Courses presented by professional training organizations (commercial or non-profit)
7 ☐	7 ☐	Other training
0 ☐	0 ☐	None

b. Were continuing education units (CEU's) or other forms of recognized credit units earned as a result of the above training (in item 12a)?

1980	1981
135	136
1 ☐ Yes	1 ☐ Yes
2 ☐ No	2 ☐ No

Part III — EMPLOYMENT STATUS

13. During the week of May 9, 1982, were you —

137
1 ☐ Working full time (35 hours or more per week in at least one position) — *SKIP to 17a*
2 ☐ Working part time — *GO to 14*
3 ☐ Not working, but seeking work — *SKIP to Part IV*
4 ☐ Not working and not seeking work — *SKIP to 15*

14. Were you seeking full-time work?

138
1 ☐ Yes
2 ☐ No
} *SKIP to 17a*

15. Did you look for work at any time during the 2 weeks PRIOR to the week of May 9, 1982?

139
1 ☐ Yes
2 ☐ No

16. What was the MAIN reason you were not working or not seeking work during the week of May 9, 1982?

Mark (X) only one box.

140
1 ☐ On layoff from a job
2 ☐ On vacation or otherwise temporarily absent from a job for health or personal reasons
} *GO to 17a*

3 ☐ Retired
4 ☐ Student
5 ☐ Family responsibilities
6 ☐ Chronic illness or permanent disability
7 ☐ Could not find work or believed no jobs available in my particular field
8 ☐ Did not want to work
9 ☐ New job to begin within 30 days
10 ☐ Waiting for school to begin
11 ☐ Other — *Specify* ____________
} *SKIP to Part IV*

17a. During the week of May 9, 1982, were you working at (or on layoff from) a position related to the natural sciences, social sciences, or engineering?

141
1 ☐ Yes — *SKIP to Part IV*
2 ☐ No — *GO to b*

b. What was the most important reason for taking this nonscience or nonengineering position?

Mark (X) only one box.

142
1 ☐ Preferred nonscience or nonengineering position
2 ☐ Promoted out of science or engineering position
3 ☐ Pay was better in nonscience or nonengineering position
4 ☐ Locational preference
5 ☐ Science or engineering position not available
6 ☐ Other — *Specify* ____________

Part IV — EMPLOYMENT PROFILE

143 0 ☐ If you were never employed nor self-employed during or at any time prior to the week of May 9, 1982, mark the box and skip to item 30 on page 6.

In this part of the questionnaire, we are asking questions about your job held during the week of May 9, 1982, or, if you were not employed at that time, about your most recent job prior to May 9. List any employment, including a military service job, not just a scientific or technical job. If you had more than one regular job the week of May 9, record the one which you consider to be your principal employment.

18a. For whom did you work? *Enter name of company, business organization, government agency, or other employer (or self-employed).*

____
____

b. Location where you were employed. *Enter city, county and State where company, business or other employer is located.*

City or town ____________
County 144 ☐☐☐☐
State or foreign country 145 ☐☐☐

CONTINUE WITH PAGE 4

Part IV — EMPLOYMENT PROFILE — Continued

19. What kind of business was this?

Enter code and description from Reference List B. If the organization conducted its activities at different locations, enter the description of the activity at the location where you were employed.

146 Code ☐☐☐ Description from Reference List B ____________________

20. What kind of work were you doing?

Enter the code and description of your occupation from Reference List C.

147 Code ☐☐☐ Description from Reference List C ____________________

21a. Which category best describes the type of organization of your principal employment?

Mark (X) only one box.

148
- 01 ☐ Self-employed
- 02 ☐ Business or industry
- 03 ☐ Junior college, 2-year college, technical institute
- 04 ☐ Medical school
- 05 ☐ 4-year college or university, other than medical school
- 06 ☐ Elementary or secondary school system
- 07 ☐ Hospital or clinic
- 08 ☐ Non-profit organization, other than hospital, clinic, or educational institution
- 09 ☐ U.S. military service, active duty, or Commissioned Corps, e.g., USPHS, NOAA
- 10 ☐ U.S. Government, civilian employee
- 11 ☐ State government
- 12 ☐ Local or other government — *Specify* ____________________
- 13 ☐ International agency
- 14 ☐ Other — *Specify* ____________________

b. If you had more than one job during the week of May 9, 1982, enter the category code from above that is most appropriate for your SECOND job.

Enter the appropriate code (01 – 14) from item 21a above.

150 ☐☐ Second job

0 ☐ Did not have a second job the week of May 9, 1982

22. From the activities listed below, select your primary and secondary work activities for your principal job as reported in item 18, in terms of time devoted for a typical week. *Enter the appropriate code (01 – 16) for each in the specified box.*

151 ☐☐ Primary work activity

152 ☐☐ Secondary work activity

PLEASE NOTE:

Basic research is study directed toward gaining scientific knowledge primarily for its own sake.

Applied research is study directed toward gaining scientific knowledge in an effort to meet a recognized need.

Development is direction of the knowledge gained from research toward production of useful materials, devices, systems, and methods.

Code
- **01** — Management or administration of research and development
- **02** — Management or administration of other than research and development
- **03** — Teaching and training — preparing and teaching courses, guiding and counseling students or trainees
- **04** — Basic research
- **05** — Applied research
- **06** — Development — product, process, and technical development
- **07** — Report and technical writing, [illegible] information retrieval
- **08** — Clinical diagnosis

Code
- **09** — Design of equipment, processes, models
- **10** — Quality control, testing, evaluation, or inspection
- **11** — Operations — production, maintenance, construction, installation
- **12** — Distribution — sales, traffic, purchasing, customer and public relations
- **13** — Statistical work — survey work, forecasting, statistical analysis
- **14** — Consulting
- **15** — Computer applications
- **16** — Other activities — *Specify* ____________________

23. During a typical week in your principal job reported in item 18, what percent of working time did you devote to each of the following activities?

Entries should total 100%.

153 ______ % Management or administration

154 ______ % Basic research

155 ______ % Applied research

156 ______ % Development

157 ______ % Teaching

158 ______ % Operations, production

159 ______ % Other

100%

24a. For your principal job reported in item 18, what basic annual salary do you CURRENTLY earn? *Exclude bonuses, overtime, summer teaching, or other payments for secondary jobs.*

160 $ ____________ . ▨ Per year — *GO to b*

161 0 ☐ Not currently employed at that job — *SKIP to 25*

b. If academically employed in your principal job, mark whether your salary is for —

162
- 1 ☐ 9 – 10 months
- 2 ☐ 11 – 12 months

25. What was your total professional income in 1981 including basic annual salary, bonuses, overtime, summer teaching, consulting fees, etc.?

164 $ ____________ . ▨ In 1981

0 ☐ None

CONTINUE WITH PAGES 5 AND 6 →

Part IV — EMPLOYMENT PROFILE — Continued

26. What was your basic annual salary in 1981 for the principal job you held longest, excluding bonuses, overtime, summer teaching, consulting fees, etc.?

165 $ ________
0 ☐ None

27a. During the week of May 9, 1982, was any of your work at your principal job supported by U.S. Government funds?

166
1 ☐ Yes — *GO to b*
2 ☐ No
3 ☐ Don't know } *SKIP to 28*

b. Which of these agencies or departments were supporting your work?

Mark (X) all that apply.

167 *
1 ☐ AID (Agency for International Development)
2 ☐ Department of Agriculture
3 ☐ Department of Commerce
4 ☐ Department of Defense
5 ☐ Department of Energy
6 ☐ Department of Education (NIE, OE, NCES)
7 ☐ Department of Health and Human Services (Old HEW)
8 ☐ Department of Housing and Urban Development
9 ☐ Department of the Interior
10 ☐ Department of Justice
11 ☐ Department of Labor
12 ☐ Department of Transportation
13 ☐ EPA (Environmental Protection Agency)
14 ☐ NASA (National Aeronautics and Space Administration)
15 ☐ NSF (National Science Foundation)
16 ☐ Nuclear Regulatory Commission
17 ☐ Other — *Specify* ________
18 ☐ Don't know source agency

28. From this list of selected areas of national interest, indicate the ONE area to which you devote(d) the MOST professional time during a typical week at the job reported in item 18.

168
1 ☐ Energy and fuel — *GO to 29a*
2 ☐ Health
3 ☐ Environment
Education
  4 ☐ Teaching
  5 ☐ Other education
6 ☐ National defense
7 ☐ Crime prevention and control
8 ☐ Food production and technology
9 ☐ Other mineral resources
10 ☐ Community development and service
11 ☐ Housing (planning, design, construction)
12 ☐ None of the above
} *SKIP to 30* (2–12)

29a. Please mark your best estimate of the percent of your professional time that you devote(d) to energy and fuel during a typical week.

169
1 ☐ 100 percent
2 ☐ 75 to 99 percent
3 ☐ 50 to 74 percent
4 ☐ 25 to 49 percent
5 ☐ 24 percent or less

b. From this list, mark the ONE energy source that involves(d) the LARGEST proportion of your energy-related work during a typical week.

170
Coal and coal products
2 ☐ Petroleum (including oil shale and tar sands) or natural gas
3 ☐ Fission
4 ☐ Fusion
5 ☐ Hydroenergy
6 ☐ Direct solar (including space and water heating, thermal, electric)
7 ☐ Indirect solar (winds, tides, biomass, etc.)
8 ☐ Geothermal
9 ☐ Other — *Specify* ________

c. Please read this list of energy-related activities and mark the item(s) that best describe the activity(ies) in which you are (were) engaged during a typical week.

Mark (X) all that apply.

171 *
01 ☐ Exploration
02 ☐ Extraction (gas, oil, mining)
03 ☐ Manufacture of energy-related components or products
04 ☐ Fuel processing (including refining and enriching)
05 ☐ Electric power generation
06 ☐ Transportation, transmission, distribution of fuel or energy
07 ☐ Energy storage
08 ☐ Energy utilization, management
09 ☐ Fuel reprocessing or disposal
10 ☐ Energy conservation
11 ☐ Environmental impact (health, economic, etc.)
12 ☐ Education, training
13 ☐ Other — *Specify* ________

d. Please enter the number of the activity from the above list (29c) that best describes the activity in which you spend(t) MOST of your energy-related time.

Enter the appropriate code number (01 to 13) from item 29c above.

172 ☐☐ Activity

FORM SSE-20 (2-22-82)

Part V — OTHER INFORMATION

30. During calendar year 1981, how many weeks —		
(a) Did you work? (Include weeks of paid vacation, paid sick leave, and military service.)	173	________ Weeks
(b) Were you without a job, but seeking work; or on layoff from a job?	174	________ Weeks
(c) Were you not working, not seeking work, and not on layoff from a job? .... *(Entries should total 52 weeks.)*	175	________ Weeks **52 Weeks**
31. How many years of professional work experience, including teaching, have you had?	176	________ Years 0 ☐ None
32. Since age 22, have you had any periods of at least one year's duration when you were neither employed, nor looking for work, nor attending school full time? (Do NOT include time in the Armed Forces.)	177	2 ☐ No 1 ☐ Yes — **How many years?**
	178	________ Total years
33. *Complete the following statement:* **Based on my total education and experience, I regard myself professionally as a (an) —** *Enter code and description from Reference List C.*	179	Code ☐☐☐ Description from Reference List C ________ ________
34. Are you currently a member of a national professional society or association?	180	2 ☐ No 1 ☐ Yes — *Specify organization(s)*
	181	☐☐ (1) ________
	182	☐☐ (2) ________
	183	☐☐ (3) ________
35. Are you currently professionally licensed, certified, or registered? For example: teaching certificate, medical license, professional society certification, etc.	184	2 ☐ No 1 ☐ Yes — *Give title(s)*
	185	☐☐ (1) ________
	186	☐☐ (2) ________
36a. Was the position you held on May 9, 1976, different from your present position? (Consider a change of position to have occurred if you changed employers, if you remained with the same employer but changed your occupation, or if you remained with the same employer but had a significant change in duties or level of responsibility.)	187	1 ☐ Yes — *GO to b* 2 ☐ No 3 ☐ Not working the week of May 9, 1976 4 ☐ Not currently working (2–4) *SKIP to 37a*
b. How was it different? *Mark (X) all that apply.*	188 *	1 ☐ Different employer 2 ☐ Different occupation 3 ☐ Different duties or responsibilities 4 ☐ Other — *Specify change* ________
37a. In the event it is necessary to contact you to clarify some of the information you provided, may we contact you by telephone?		☐ Yes — *GO to b* ☐ No — *SKIP to 38*
b. Enter the telephone number on which you can be reached.	189	____ Area code ________ Number
c. If there is an alternate number on which you can be reached, enter it also.	190	____ Area code ________ Number
38. Please enter the name of a person, other than yourself and at an address other than yours, through whom you can be reached.	191	Name Relationship to you Number and street City or town State or foreign country ZIP code

39. Please print your full name

40. Date prepared

Thank you for completing this questionnaire. Please return the completed form in the enclosed addressed envelope.

FORM **SSE-25**
(2-22-82)

U. S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

REFERENCE LIST GUIDE

1982 NATIONAL SURVEY OF NATURAL AND SOCIAL SCIENTISTS AND ENGINEERS

REFERENCE LIST A — MAJOR FIELDS OF STUDY

This list is to be used in answering question 10 about the field(s) in which you have obtained study or training. It is a list of fields of academic study generally leading to bachelor's or higher degrees.

Please scan the entire list, choose the appropriate answer for the question and then enter the code and description in the appropriate section of question 10. If none of the categories listed below adequately describes what you were studying or being trained in, use the "Other" category (code 238) and enter a brief description of what you were studying in the space provided on the questionnaire.

Code	Description
	Biological and Agricultural Sciences and Related Fields
101	Agriculture, business
102	Agriculture, general
103	Agronomy, field crops
104	Anatomy, histology
105	Animal physiology
106	Animal science
107	Bacteriology, virology, mycology, parasitology
108	Biochemistry
109	Biology, general
110	Biometrics and biostatistics
111	Biophysics
112	Botany, general
113	Cell biology
114	Dairy sciences (dairy husbandry)
115	Ecology
116	Embryology
117	Entomology
118	Farm management
119	Fish and game or wildlife management
120	Food science (food technology and processing, dairy manufacturing and technology, food industry)
121	Forestry
122	Genetics
123	Horticulture
124	Immunology
125	Marine biology
126	Microbiology
127	Molecular biology
128	Natural resources management
129	Neurosciences
130	Nutrition
131	Pathology, human and animal
132	Pathology, plant
133	Physiology, human and animal
134	Physiology, plant
135	Poultry sciences
136	Radiology
137	Soil sciences (soil management, soil conservation)
138	Toxicology
139	Zoology, general
140	Biological and agricultural sciences, other fields
	Education
141	Biological sciences education
142	Mathematics education
143	Physical sciences education
144	Social science education
145	Education, other fields
	Engineering
146	Aerospace, aeronautical, astronautical and related fields
147	Agricultural
148	Architectural
149	Bioengineering and biomedical engineering
150	Chemical, petroleum refining
151	Civil, construction, transportation
152	Electrical, electronics, communications
153	Engineering sciences, mechanics, physics
154	Engineering technology
155	Environmental, sanitary engineering
156	General or unified
157	Geological engineering
158	Geophysical engineering
159	Industrial
160	Mechanical
161	Metallurgical, materials, ceramics
162	Mining, mineral, geological
163	Naval architecture and marine engineering
164	Ocean engineering
165	Petroleum
166	Textile engineering
167	Engineering, other fields
	Health Fields
168	Medicine or premedicine, and clinical medical sciences
169	Nursing (4 years or longer program)
170	Pathology
171	Pharmacology
172	Pharmacy
173	Health professions, other fields (4 years or longer)

Code	Description
	Mathematical Sciences
174	Actuarial sciences
175	Applied mathematics
176	Computer science
177	Mathematics
178	Operations research/management sciences
179	Statistics
	Physical Sciences
180	Analytical chemistry
181	Astronomy
182	Astrophysics
183	Atmospheric sciences and meteorology
184	Atomic—molecular physics
185	Biochemistry
186	Chemistry, general
187	Earth sciences, general
188	Elementary particles and fields
189	Geology
190	Geochemistry
191	Geophysics and seismology
192	Inorganic chemistry
193	Metallurgy
194	Nuclear physics
195	Oceanography
196	Organic chemistry
197	Paleontology
198	Pharmaceutical chemistry
199	Physical chemistry
200	Physical sciences, general
201	Physics, general
202	Solid state physics
203	Other, earth sciences
204	Other, physical sciences
	Psychology
205	Clinical
206	Counseling
207	Developmental
208	Educational
209	Experimental
210	Industrial/organizational
211	Physiological
212	Psychology, general
213	Psychometrics
214	Social
215	Psychology, other fields
	Social Sciences
216	Anthropology
217	Criminology
218	Economics, agricultural
219	Economics, except agricultural
220	Geography
221	Political science and government
222	Sociology
223	Social sciences, other fields
	Arts, Humanities, and Other Specialties
224	Architecture
225	Area studies
226	Arts, general
227	Business and commerce, including accounting, hotel and restaurant administration, and secretarial studies
228	English and journalism
229	Fine and applied arts, all fields
230	Foreign language and literature, all fields
231	History
232	Home economics, all fields
233	Law or prelaw
234	Library science
235	Military science, including merchant marine deck officer
236	Philosophy, all fields
237	Religion and theology, all fields
238	Other *(Describe briefly in the applicable item on questionnaire.)*

REFERENCE LIST B — KINDS OF BUSINESSES

This list is to be used in answering question 19 about the kind of business or industry for which you worked. Please scan the entire list, choose the appropriate answer for the question and enter the code and description from this list. If none of the categories listed below adequately describes the kind of business for which you worked, use the "Other" category (code 434).

Code	Description
	Manufacturing
401	Aircraft, aircraft engines, aircraft parts
402	Chemicals and allied products
403	Electrical machinery, equipment and supplies for the generation, storage, transformation, transmission and utilization of electrical energy
404	Electronic computers and computing equipment, and accounting, calculating and office machinery and equipment
405	Fabricated metal products (except ordnance, machinery, and transportation equipment)
406	Machinery (except electrical) including engines and turbines, farming and construction machinery, mining, metalworking and other manufacturing and service-industry machines
407	Motor vehicles and motor vehicle equipment, including trucks, buses, automobiles, railroad locomotives, railroad cars, railroad equipment
408	Ordnance, including manufacture of arms, ammunition, tanks, and complete guided missiles, space vehicles, and parts
409	Petroleum and coal products, including petroleum refining
410	Primary metal industries, including smelting, refining, rolling, drawing, alloying, and manufacture of castings, forgings, and other basic metal products
411	Professional, scientific, and photographic equipment and supplies
412	Radio, television, and communication equipment and parts
413	Other manufacturing, including printing and publishing
	Educational Institutions
414	College or university (offering at least a Bachelor's degree)
415	Junior college or technical institute
416	Medical school
417	Other educational institutions
	Health Services
418	Hospital or clinic
419	Other medical and health services
	Other Kinds of Business
420	Agriculture, forestry, and fisheries
421	Business, repair, and personal services
422	Construction
423	Engineering, architectural, or surveying services
424	Museums, art galleries, and zoos
425	Private, non-profit organizations other than educational institutions and hospitals
426	Professional and technical societies
427	Research institutions
428	Other professional services, excluding health and education
429	Finance, insurance, or real estate
430	Mining and petroleum extraction
431	Retail and wholesale trade
432	Transportation, communication, or other public utilities
433	U.S. Postal Service
434	Other *(Describe briefly in the applicable item on questionnaire)*
	Public Administration, excluding U.S. Postal Service (see code 433) (Include only uniquely governmental activities, such as U.S. Park Service, U.S. Air Force, State court, Department of Motor Vehicles, city building inspection, or city public welfare. For example: if you work for the U.S. Park Service, use code 436; on the other hand, if you work at a Veteran's Administration Hospital, use code 418, Hospital or clinic; if you work at a State university, use code 414, College or university; if you work for a county road building agency, use code 422, Construction; if you work in a Defense Department research laboratory, use code 427, Research institutions.)
435	Uniformed military service
436	Federal public administration
437	State public administration
438	Local public administration
439	Regional government
440	Other government (e.g., United Nations)

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REFERENCE LIST C — OCCUPATIONS

This list is to be used in answering questions 20 and 33 about your occupational and professional classification. Please scan the entire list, choose the appropriate entry and enter the code and description from this list. If you cannot find exactly the right entry, please choose the one that comes nearest to it. If none of the entries is at all appropriate, use the "Other" category (code 788) and enter a brief description in the space provided on the questionnaire. Note that codes 701 – 744 include college professors and instructors.

Code	Description
	Engineers, including college professors and instructors
701	Engineer, aeronautical, aerospace or astronautical
702	Engineer, agricultural
703	Engineer, chemical
704	Engineer, civil or architectural
705	Engineer, electrical or electronic
706	Engineer, environmental or sanitary
707	Engineer, industrial
708	Engineer, marine engineer or naval architect
709	Engineer, mechanical
710	Engineer, metallurgical or materials
711	Engineer, mining or geological
712	Engineer, nuclear
713	Engineer, petroleum
714	Engineer, sales
715	Engineer, systems
716	Engineer, other fields *(Describe briefly in the applicable item on questionnaire.)*
	Computer Specialists, including college professors and instructors
717	Computer programmer
718	Computer scientist
719	Computer systems analyst
720	Other computer specialists *(Describe briefly in the applicable item on questionnaire.)*
	Mathematicians, Statisticians and other Mathematical Scientists, including college professors and instructors
721	Actuary, including actuarial mathematician
722	Mathematician
723	Operations research analyst
724	Statistician
725	Systems analyst, except computer systems or data processing (see code 719)
726	Other mathematical scientists *(Describe briefly in the applicable item on questionnaire.)*
	Physical Scientists, including college professors and instructors
727	Atmospheric scientist, meteorologist, space scientist
728	Chemist, except biochemist
729	Earth scientist, including geologist, geophysicist, geodesist, etc.
730	Oceanographer
731	Physicist, astronomer
732	Other physical scientists, e.g., geographer, environmental scientist, materials scientist, etc. *(Describe briefly in the applicable item on questionnaire.)*
	Biological Scientists, including college professors and instructors
733	Agricultural scientist, food scientist, fishery biologist
734	Biochemist
735	Biological scientist, life scientist, botanist, ecologist
736	Biophysicist
737	Forestry or conservation scientist, including foresters and conservationists
738	Medical scientist, excluding persons who are primarily medical practitioners (see Health Occupations)
739	Other biological scientists *(Describe briefly in the applicable item on questionnaire.)*
	Social Scientists, including college professors and instructors
740	Anthropologist
741	Economist, including market research analysts
742	Psychologist
743	Sociologist
744	Other social scientists, e.g., demographer, historian, political scientist, etc. *(Describe briefly in the applicable item on questionnaire.)*

Code	Description
	Health Occupations, including persons who are primarily practitioners. Persons engaged primarily in medical research, teaching, and similar activities use code 738, Medical scientist.
745	Dental hygienist
746	Medical technician
747	Physician or surgeon
748	Other health occupations, e.g., dentist, pharmacist, practical and registered nurse, etc. *(Describe briefly in the applicable item on questionnaire.)*
	Technicians and technologists, except medical and health
749	Designer, electronic parts
750	Designer, industrial
751	Designer, machine tools
752	Designer, other
753	Drafting occupations, including draftsman
754	Technician, architectural
755	Technician, biological and agricultural
756	Technician, construction and highway
757	Technician, electrical and electronic
758	Technician, industrial engineering
759	Technician, mechanical engineering
760	Technician, other engineering
761	Technician, surveying and mapping (Surveyors, see code 787)
762	Technician, other science
763	Technician, other fields *(Describe briefly in the applicable item on questionnaire.)*
	Teachers
764	Teacher, elementary school
765	Teacher, secondary school
766	Teacher, college and university teacher of non-engineering and non-science subjects (Engineering and science teachers, see codes 701 – 744.)
	Administrators, Managers, and Officials, excluding farm
767	Administrator or manager, production and operations
768	Administrator or manager, scientific and technical research and development
769	Administrator, manager, or official, all others, excluding self-employed
770	College president or dean
771	Self-employed proprietor
772	Urban and regional planners
	All other occupations
773	Accountant, except financial analyst
774	Administrative support occupations, including clerical work (such as bookkeeper, secretary, etc.)
775	Clergy
776	Farmer (owner, manager, tenant, or farm laborer)
777	Financial analyst
778	Firefighter or police
779	Laborer, except farm
780	Lawyer or judge
781	Librarian
782	Merchant or shopkeeper, self-employed
783	Operator or fabricator (such as assembler, welder, truck driver, etc.)
784	Postal worker
785	Precision production, craft, and repair occupations (such as carpenter, electrician, mechanic, repair worker, etc.)
786	Sales occupations, excluding sales engineer
787	Surveyor
788	Other occupations, not specified above *(Describe briefly in the applicable item on questionnaire.)*

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